

1987

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**1987-88 Bulletin**  
**California State University,**  
**San Bernardino**



## THE CALIFORNIA STATE UNIVERSITY

This Bulletin represents the University's course descriptions and requirements at the undergraduate and graduate levels. California State University, San Bernardino reserves the right to revise Bulletin provisions in accordance with official actions of the Board of Trustees of the California State University and other governing bodies. Students are advised to consult the appropriate department, school or office for current information. Supplementary bulletins contain additional information about extended education summer programs. The 1987-88 Bulletin may be purchased at the University Bookstore, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407.

Inquiries about admission to the college should be directed to the Director of Admissions, (714) 887-7311; requests for general academic information and about graduate programs may go to the Associate Vice President, Academic Programs, (714) 887-7521, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407.

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**California State University,  
San Bernardino  
1987-88 Bulletin**







**CONTENTS**

ACADEMIC CALENDAR	<b>4</b>
THE CSU	<b>7</b>
UNIVERSITY ADMINISTRATION	<b>13</b>
THE UNIVERSITY ACADEMIC PROGRAM	<b>19</b>
ACADEMIC SUPPORT SERVICES	<b>29</b>
STUDENT LIFE	<b>33</b>
ADMISSION	<b>45</b>
EVENING OFFICE	<b>59</b>
FEE SCHEDULE	<b>61</b>
ACADEMIC REGULATIONS	<b>65</b>
UNDERGRADUATE DEGREE REQUIREMENTS	<b>81</b>
GRADUATE PROGRAMS	<b>91</b>
CERTIFICATE PROGRAMS	<b>103</b>
EXTENDED EDUCATION	<b>125</b>
THE CURRICULUM	<b>129</b>
FACULTY	<b>429</b>
APPENDIX	<b>455</b>
INDEX	<b>463</b>

CALENDAR  
1987-88

FALL TERM 1987

Sept. 15	Beginning of the academic year
Sept. 16-18	Schedule adjustments for early registrants
Sept. 17-18, 21-22	Advising for late registrants
Sept. 21-22	Walk-through registration
Sept. 24	Classes begin
Sept. 24-30	Late registration period
Sept. 24-30	Regular add period
Sept. 24-Oct. 8	Drop period for fee refund
Sept. 29	Last day to file or refile graduation check for March graduation without payment of late fee
Oct. 9-14	Late drop period
Oct. 14	Last day to drop classes without record; late add period ends
Nov. 5-6, 9-13, 16	Advising and early registration for winter term, 1988
Nov. 26-27-28	Thanksgiving recess
Dec. 4	Last day of classes
Dec. 7-10	Final examinations
Dec. 11	Last day to file or refile graduation check for June, July and August graduation without late fee
Dec. 14	Grades due; end of term
Dec. 15-Jan. 6	Academic recess

WINTER TERM 1988

Jan. 5-6	Schedule adjustments for early registrants
Jan. 7	Beginning of winter term
Jan. 7-8	Walk-through registration
Jan. 11	Classes begin
Jan. 11-15	Late registration period
Jan. 11-15	Regular add period
Jan. 11-25	Drop period for fee refund
Jan. 18	Martin Luther King, Jr. birthday recess

1987

SEPTEMBER						
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OCTOBER						
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NOVEMBER						
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DECEMBER						
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1988

JANUARY						
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FEBRUARY						
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27	28	29				

Jan. 26–Feb. 1	Late drop period
Feb. 1	Last day to drop classes without record; late add period ends
Feb. 10–12, 15–19	Advising and early registration for spring term, 1988
March 11	Last day to file or refile a graduation check for December graduation without late fee
March 18	Last day of classes
March 21–24	Final examinations
March 28	Grades due; end of term
March 29–30	Academic recess
SPRING TERM 1988	
March 29–30	Schedule adjustments for early registrants
March 31	Beginning of academic term
March 31–April 1	Walk-through registration
April 4	Classes begin
April 4–8	Late registration period
April 4–8	Regular add period
April 4–18	Drop period for fee refund
April 19–22	Late drop period
April 22	Last day to drop classes without record; late add period ends
April 25–29, May 2–4	Advising and early registration for fall term, 1988
May 30	Memorial Day (University closed)
June 13	Last day of classes
June 14–17	Final examinations
June 18	Commencement
June 20	Grades due; end of term
SUMMER SESSIONS 1988	
June 22–23	Registration for all sessions
June 27	Classes begin for sessions I, IV and V
July 4	Independence Day (University closed)
July 25–29	Registration for sessions II and III
Aug. 1–2	Final examinations for session I
Aug. 3	Classes begin for sessions II and III
Aug. 22–23	Final examinations for session IV
Aug. 24	Final examinations for session II
Sept. 6	Final examinations for session V
Sept. 7	Final examinations for session III

**MARCH**

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**APRIL**

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**MAY**

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**JUNE**

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**JULY**

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**AUGUST**

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**SEPTEMBER**

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25	26	27	28	29	30	

6 / Calendar

FALL TERM 1988

Sept. 13	Beginning of the academic year
Sept. 15-16	Schedule adjustments for early registrants
Sept. 15-16, 19-20	Advising for late registrants
Sept. 19-20	Walk-through registration
Sept. 22	Classes begin
Sept. 22-28	Late registration period
Sept. 22-28	Regular add period
Sept. 22-Oct. 6	Drop period for fee refund
Sept. 27	Last day to file or refile graduation check for March graduation without payment of late fee
Oct. 6-12	Late drop period
Oct. 12	Last day to drop classes without record; late add period ends
Nov. 3-4, 7-11, 14	Advising and early registration for winter term, 1989
Nov. 24-25-26	Thanksgiving recess
Dec. 2	Last day of classes
Dec. 5-8	Final examinations
Dec. 12	Grades due; end of term
Dec. 13-31	Academic recess

OCTOBER						
S	M	T	W	T	F	S
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NOVEMBER						
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DECEMBER						
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

For a more detailed calendar of academic dates and deadlines, see quarterly class schedule. The above calendar is not intended to be construed as an employee work calendar.

## THE CALIFORNIA STATE UNIVERSITY

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges and in 1982 it became The California State University. Today 18 of the 19 campuses have the title "university."

The oldest campus, San Jose State University, was founded as a normal school in 1857 and became the first institution of public higher education in California. The newest campus, California State College, Bakersfield, began instruction in 1970.

Responsibility for The California State University is vested in the Board of Trustees, whose members are appointed by the governor. The trustees appoint the chancellor, who is the chief executive officer of the system, and the presidents, who are the chief executive officers on the respective campuses.

The trustees, the chancellor and the presidents develop systemwide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the chancellor.

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require for graduation a basic program of "general education-breadth requirements" regardless of the type of bachelor's degree or major field selected by the student.

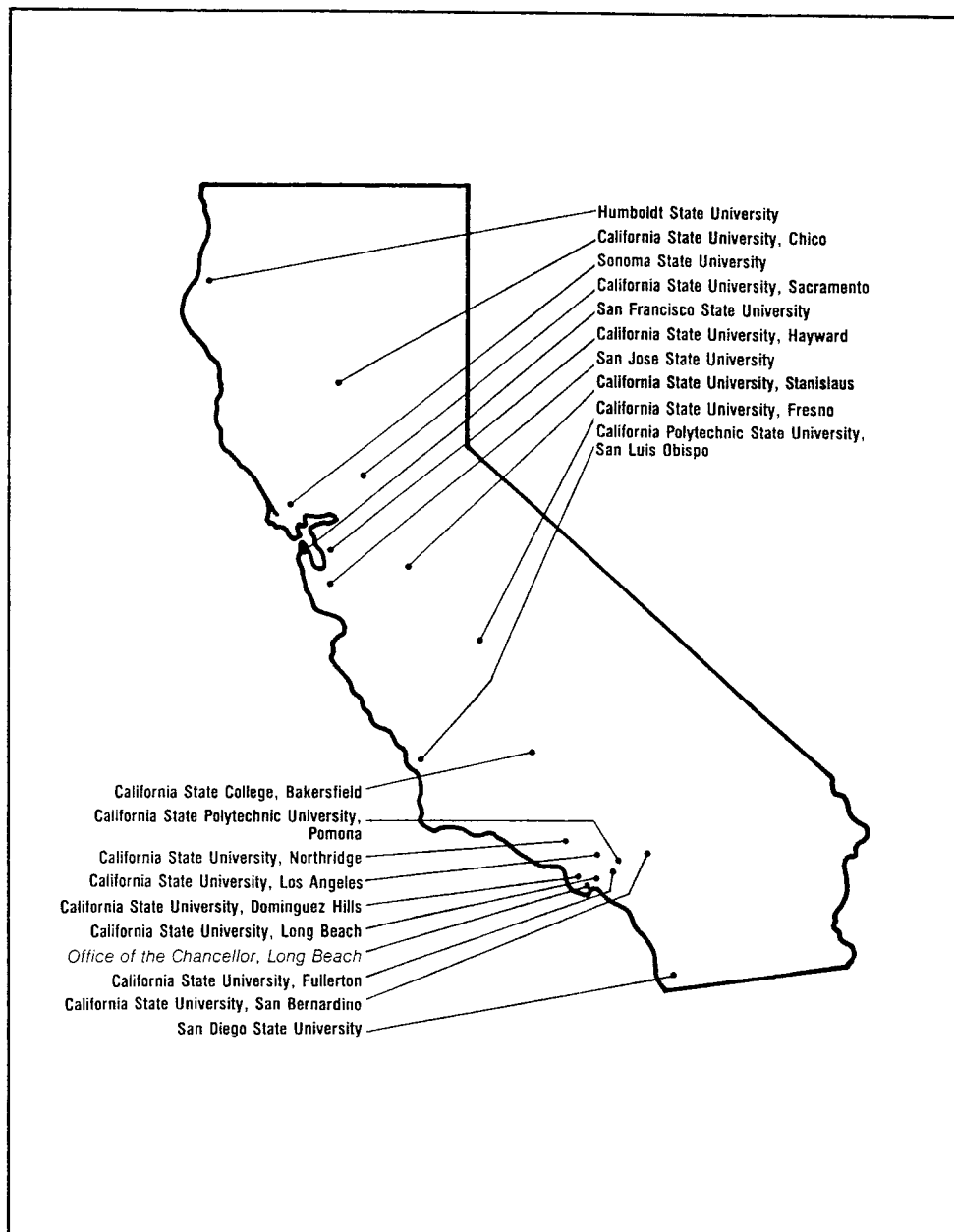
The CSU offers more than 1,500 bachelor's and master's degree programs in some 200 subject areas. Many of these programs are offered so that students can complete all upper-division and graduate requirements by part-time late afternoon and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

The Consortium of the CSU draws on the resources of the 19 campuses to offer regional and statewide off-campus degree, certificate and credential programs to individuals who find it difficult or impossible to attend classes on a campus. In addition to Consortium programs, individual campuses also offer external degree programs.

System enrollments total approximately 325,000 students, who are taught by a faculty of 19,100. Last year the system awarded more than 50 percent of the bachelor's degrees and 30 percent of the master's degrees granted in California. More than one million persons have been graduated from the 19 campuses since 1960.



# THE CALIFORNIA STATE UNIVERSITY



## Campuses of The California State University

### **California State College, Bakersfield**

9001 Stockdale Highway  
Bakersfield, California 93311-1099  
Dr. Thomas A. Arciniega, President  
(805) 833-2011

### **California State University, Chico**

1st and Normal Streets  
Chico, California 95929  
Dr. Robin S. Wilson, President  
(916) 895-6116

### **California State University, Dominguez Hills**

Carson, California 90747  
Dr. Richard Butwell, President  
(213) 516-3300

### **California State University, Fresno**

Shaw and Cedar Avenues  
Fresno, California 93740  
Dr. Harold H. Haak, President  
(209) 294-4240

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Fullerton, California 92634  
Dr. Jewell Plummer Cobb, President  
(714) 773-2011

### **California State University, Hayward**

Hayward, California 94542  
Dr. Ellis E. McCune, President  
(415) 881-3000

### **Humboldt State University**

Arcata, California 95521  
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(213) 498-4111

### **California State University, Los Angeles**

5151 State University Drive  
Los Angeles, California 90032  
Dr. James M. Rosser, President  
(213) 224-0111

### **California State University, Northridge**

18111 Nordhoff Street  
Northridge, California 91330  
Dr. James W. Cleary, President  
(818) 885-1200

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Pomona, California 91768  
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(714) 869-7659

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Sacramento, California 95819  
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(916) 278-6011

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San Bernardino, California 92407  
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(714) 887-7201

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San Diego, California 92182  
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(619) 265-5000

### **Imperial Valley Campus**

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Calexico, California 92231  
(619) 357-3721

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San Francisco, California 94132  
Dr. Chia-Wei Woo, President  
(415) 469-2141

### **San Jose State University**

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San Jose, California 95192  
Dr. Gail Fullerton, President  
(408) 277-2000

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San Luis Obispo, California 93407  
Dr. Warren J. Baker, President  
(805) 546-0111

### **Sonoma State University**

1801 East Cotati Avenue  
Rohnert Park, California 94928  
Dr. David W. Benson, President  
(707) 664-2880

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801 West Monte Vista Avenue  
Turlock, California 95380  
Dr. John W. Moore, President  
(209) 667-3122

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State Capitol, Sacramento 95814

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721 Capitol Mall, Sacramento 95814

Dr. W. Ann Reynolds

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*University*

400 Golden Shore, Long Beach 90802-4275

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*Appointments are for a term of eight years, except for a student trustee, alumni trustee and faculty trustee whose terms are for two years. Terms expire in the year in parentheses. Names are listed in order of appointment to the Board.*

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Mr. Donald G. Livingston (1987)

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Dr. Robert D. Kully (1987)

Dr. Dale B. Ride (1992)

Mr. Tom C. Stickel (1992)

Mr. Lee A. Grissom (1988)

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Dr. John E. Kashiwabara, M.D.  
(1994)

Correspondence with Trustees  
should be sent:

c/o Trustees Secretariat

The California State University

400 Golden Shore, Suite 322

Long Beach, CA 90802-4275

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*Chair:* Dr. Dale B. Ride

*Vice Chair:* Mr. Thomas J. Bernard

*Secretary-Treasurer:* Chancellor W. Ann Reynolds

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(213) 590-5506

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Dr. William E. Vandament

Dr. Herbert L. Carter

Mr. D. Dale Hanner

Dr. Caesar J. Naples

Mr. Mayer Chapman

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*Provost and Vice Chancellor, Academic Affairs*

*Vice Chancellor, Administration*

*Vice Chancellor, Business Affairs*

*Vice Chancellor, Faculty and Staff Relations*

*Vice Chancellor and General Counsel*

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Elise Traynum

*Riverside*

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*Rialto*

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## 14 / Administration

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*Director, Student Life:* Randy Harrell, M.A.

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*Supervisor, Payroll:* Judy Meenan

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*Director, Plant Operations:* David DeMauro, B.A.

*Assistant Director:* Vacant

*Administrative Supervisor:* Dennis R. Stover

*Supervisor, Building Maintenance:* Robert Tinsley

*Chief Engineer:* Leroy Wilkie

*Chief, Custodial Services:* John Overton

*Supervising Groundsworker:* Paul Frazier

*Director, Public Safety:* Arthur M. Butler, B.A.

*Manager, Police Operations:* Edward W. Harrison, M.P.A.

*Manager, Parking Services:* Harry L. Larsen, B.A.

*Personnel Officer:* Dale T. West, B.S.

*Assistant Director/Training:* Vacant

*Personnel Management Specialist/Classification:* Carlos Marquez, M.S.

*Personnel Management Specialist/Employment:* Sandra Rich, B.A.

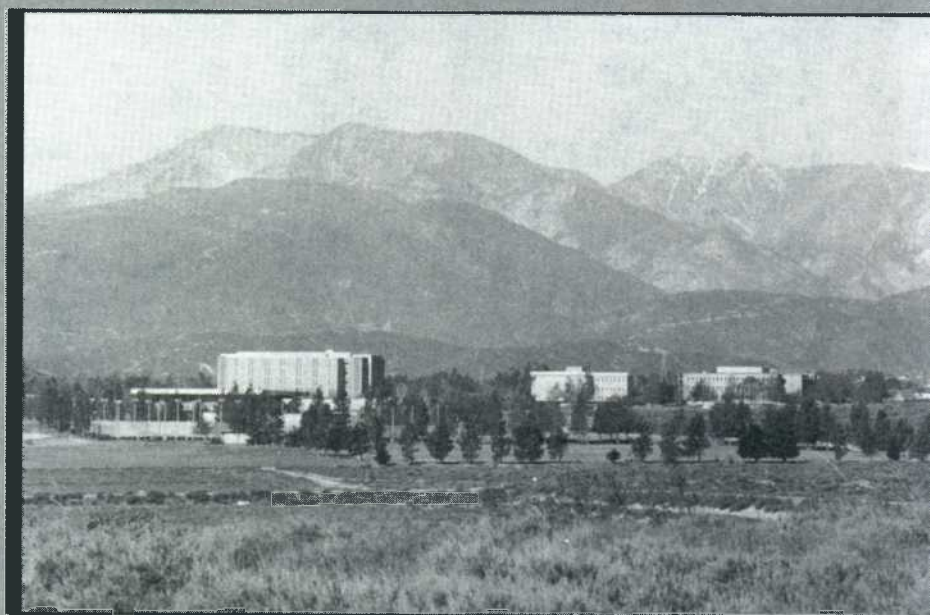
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*Supervisor, Duplicating Center:* James Gooch, A.A.

*Supervisor, Purchasing:* Kathy Shepard, M.A.

*Supervisor, Shipping, Receiving and Mail:* Michael Arredondo





## **SAN BERNARDINO: LOCATION AND HISTORY**

The city of San Bernardino is situated at the foot of the San Bernardino Mountains, which form the northeastern boundary of the San Gabriel Valley. The valley's western terminus, 60 miles away, is the Los Angeles basin and the beaches of the Pacific Ocean.

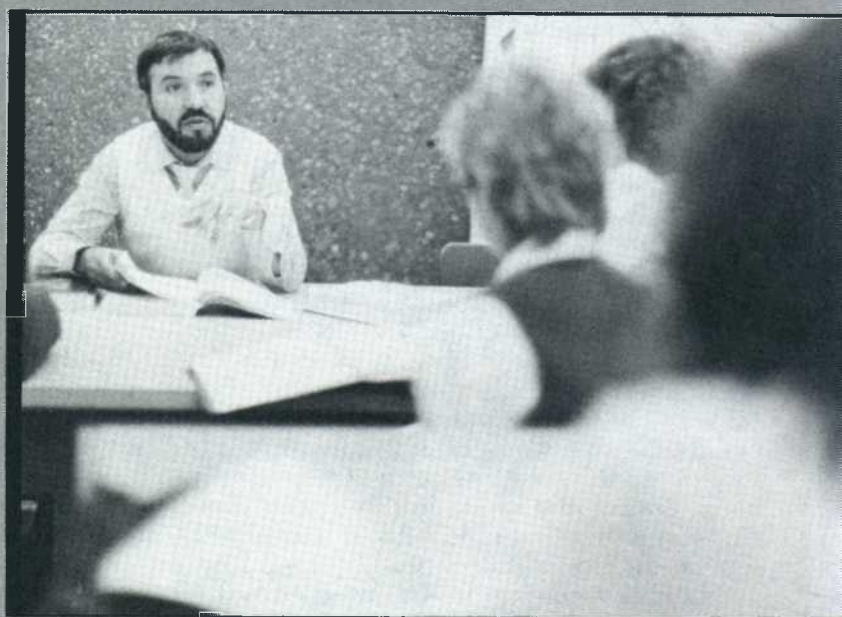
In earlier times the San Bernardino area was the home of Serrano, Luiseno and Cahuilla Indians. The first pioneers from Mexico settled in the San Gabriel Valley in the 1770's. Mission San Gabriel was founded by Fr. Junipero Serra in 1771, ten years before pueblo Los Angeles was established. The mission built a fortified asistencia near modern San Bernardino in 1819, but this was abandoned in 1834 when newly independent Mexico secularized the missions.

In 1842 the Lugo family purchased the 37,000-acre San Bernardino Valley. A group of Mormon colonists came to the valley in 1851, purchased the Lugo Rancho and built a stockade near the present county courthouse. A village developed around the stockade and this, coupled with California statehood, led to the establishment of San Bernardino County in 1853 and the incorporation of the city of San Bernardino in 1854. Connection to the transcontinental railroad in 1885 recognized the valley's importance and insured its future growth and prosperity.

### **Inland Southern California**

Historic San Bernardino Valley is part of inland southern California, an area encompassing all of San Bernardino and Riverside counties. The University is within the Riverside-San Bernardino-Ontario metropolitan area and serves as well more distant locations in the two counties—the Colorado River communities of Blythe and Needles; the high desert area including Victorville and Barstow; the low desert, Coachella Valley region including Palm Springs and Indio; the mountain communities of Big Bear, Lake Arrowhead and Idyllwild; the Hemet Valley, including Hemet, San Jacinto and Perris.





## THE UNIVERSITY ACADEMIC PROGRAM

Now entering its third decade, California State University, San Bernardino continues its development in new directions.

The College opened in 1965, offering six degree programs to approximately 300 students and focusing on the liberal arts. Currently the curriculum has been expanded to 40 baccalaureate degree programs, 15 teaching credential fields and various options within 11 master's degree programs. Current enrollment exceeds 7,000.

While continuing to emphasize the liberal arts, the University is now implementing a number of career-oriented programs, both at the undergraduate and at the graduate levels.

### Academic Plan

The University has adopted an academic calendar consisting of three 11-week terms which differs from the conventional quarter system in that full-time students normally enroll in only three courses per term. Under the three/three plan, each course normally meets four hours per week (laboratory and studio courses are exceptions). The student thus is in class 12 hours per week or the equivalent, instead of the traditional 15. Such reduction of classroom time is balanced by increased assignment of written work and greater emphasis on independent study and independent laboratory work. As a result, student effort is still expected to be a minimum of 15 hours per week per class. This academic program is designed to afford the student the opportunity to carry on studies in depth and in breadth, to develop abilities to work independently and to achieve intellectual growth.

### Class Size

A distinctive feature of the San Bernardino plan is the attempt to offer the majority of courses in a small lecture/discussion/seminar format. Currently approximately 70 percent of the courses are taught in this arrangement, with an average class size of 17. This small class size increases the possibilities for discussion and for student-faculty contacts both within and outside the classroom.

To maintain the small class as the norm requires that a small proportion of courses be offered in a large-lecture format (maximum enrollment of 250) or in an intermediate size (enrollment of 50 to 100).

Among lower-division general education courses, those in the basic skills area, in foreign language and in philosophy are offered mostly through small classes, while those in other areas employ intermediate or large-lecture classes. Upper-division general education courses are also offered in the large-lecture format. Each department utilizes intermediate size classes for a small number of required or elective courses, but the majority of departmental offerings are in small



## 20 / Academic Program

classes. The typical laboratory section has a maximum enrollment of 24, sometimes less.

### Faculty Office Hours

In addition to meeting with students during designated class hours, faculty members hold regularly scheduled office hours, which are posted outside their offices. A student who is unable to see a faculty member during class or the posted office hours may arrange an appointment by contacting the appropriate department office.

### Accreditation

The California State University, San Bernardino is accredited by the Western Association of Schools and Colleges, the official accrediting body for institutions of higher learning in the West. The teaching credential programs of the University are approved by the California State Board of Education. The Chemistry Department is accredited by the American Chemical Society. The baccalaureate program in nursing is accredited by the National League for Nursing. California State University, San Bernardino is an accredited institutional member of the National Association of Schools of Art and Design.

### Phi Kappa Phi

The University has an active chapter of the national honor society of Phi Kappa Phi, whose purpose is the recognition and encouragement of superior scholarship in all academic disciplines. Membership is by invitation issued to selected juniors, seniors and graduate students who have excelled in scholarship and who meet the chapter's requirements.

### Baccalaureate Degree Programs

In the 1987–88 academic year, the University will offer bachelor's degree programs in the following fields (majors):

School of Business and Public Administration Administration	B.A./B.S.
School of Humanities	
Art	B.A.
Communication	B.A.
English	B.A.
French	B.A.
Humanities	B.A.
Music	B.A.
Philosophy	B.A.
Spanish	B.A.
Theatre Arts	B.A.
School of Natural Sciences	
Biology	B.A./B.S.
Chemistry	B.A./B.S.
Computer Science	B.S.
Foods and Nutrition	B.S.

Health Science	B.S.
Industrial Technology (pending)	B.S.
Mathematics	B.A./B.S.
Nursing	B.S.
Physical Education	B.S.
Physics	B.A./B.S.
School of Social and Behavioral Sciences	
Anthropology	B.A.
Criminal Justice	B.A.
Economics	B.A.
Geography	B.A.
History	B.A.
Political Science	B.A.
Psychology	B.A.
Social Sciences	B.A.
Sociology	B.A.
Interdisciplinary Programs	
American Studies	B.A.
Environmental Studies	B.A.
Human Development	B.A.
Human Services	B.A.
Liberal Studies	B.A.
Special Major	B.A.
Vocational Education	B.V.E.

### Graduate Programs

In the 1987-88 academic year, the University will offer master's degree programs in the following fields:

Business Administration, M.B.A.

Public Administration, M.P.A.

Biology, M.S.

Criminal Justice, M.A.

Education, M.A.

(with options in elementary education, secondary education, history and English for secondary teachers, reading, counselor education, school administration, special education, bilingual/cross-cultural education and vocational education)

English Composition, M.A.

National Security Studies, M.A.

Psychology, M.A. (with concentrations in general psychology, industrial-organizational psychology and life-span psychology)

Psychology, M.S. (with concentration in clinical/counseling psychology)

Rehabilitation Counseling, M.A.

Special Major, M.A.

## 22 / Academic Program

### The Coachella Valley Center

Now it is possible for residents of the Coachella Valley and surrounding communities to complete a B.A. or M.A. or teaching credential without driving long distances. Cal State, San Bernardino opened a satellite campus at College of the Desert in fall of 1986, and the two institutions are working in partnership to provide affordable higher education. College of the Desert provides freshman and sophomore-level course work. The University's Coachella Valley Center (as the new satellite is called) offers junior, senior and graduate-level classes in a variety of programs. These include:

- B.A. in Administration;
- B.A. in Liberal Studies;
- B.A. in Social Sciences (Track C, Applied Social Sciences for Business);
- B.S. in Nursing;
- M.A. in Education (counselor education option and school administration option);
- Multiple subject credential;
- Pupil personnel services credential;
- Administrative services credential.

Like the main campus, the new center is on the quarter system, and students can enroll either exclusively in Coachella Valley or can combine San Bernardino and Coachella classes. Admissions information, course registration and academic advising are all available at the center site.

The center is located on the College of the Desert campus across from the football stadium (43-500 Monterey Avenue, Palm Desert) in three buildings housing office space and classrooms. At the present time, most courses are offered in the late afternoon and evening, but with a growing enrollment and expansion of programs, it is best to call for information (619) 341-2883.

### Special Courses

More specific information on the special courses described below can be obtained from the Office of Academic Programs or the appropriate schools and departments.

*Comprehensive Examinations.* Students now have limited opportunities to spend a full term out of the classroom while preparing for comprehensive examinations that serve as alternatives to regular instruction. Comprehensive examinations are currently available in psychology, sociology and in upper-division general education (see Interdisciplinary Studies 386, 387 and 388).

*Cooperative Education.* The University is developing ways in which students may earn course credit through academically related work experience. Currently available are internship courses in administration, anthropology, art, communication, computer science, criminal justice, English, geography, history, paralegal studies, political science, psychology and sociology.

*Self-Paced Courses.* An alternative mode of instruction, being developed for a few courses, enables students to set their own learning pace. Some of these, such as French 101-102-103, involve some classroom work. Others—such as Accounting 311, 312, 313; Anthropology 335; French 420; History 540; Management Science 304; Psychology 385 and Social Sciences 215—are conducted on an in-

dependent study basis made possible through the use of study guides, video tapes and other instructional resources.

### **Facilities**

The academic program is complemented by an excellent physical plant, consisting of 23 air-conditioned buildings. In addition to the facilities for course work in the arts, letters and sciences, the University has a number of rather distinctive facilities, such as simulation laboratories, a modern instructional center for counseling psychology, an electronic music studio, glass blowing facilities in the Art Department and a scanning electron microscope.

### **The University Library**

The Pfau Library consists of a general collection of 455,000 books and bound periodicals. The Library subscribes to more than 3,200 periodicals and newspapers in addition to other serial publications. The book collection is further augmented by recordings, musical scores, maps, microformat materials, pamphlets, curriculum materials and data base service. As a depository for California state documents, the Library regularly receives state publications. Reciprocal borrowing agreements with other area libraries further enhance the availability of material.

All materials are easily accessible to students. An open-shelf arrangement of the collection gives users convenient access to Library materials.

The Library occupies the first, third and fourth floors and parts of the basement and fifth floors of the Pfau Library Building in the center of the campus. Special facilities include individual study cubicles and carrels, group study rooms, typing rooms, listening facilities, photo-duplicating service, microform rooms, a map room and seating for about 500 users. Individual or group instruction in Library usage is available upon request.

### **The Computer Center**

The Computer Center provides access to four computer systems which allow students a wide range of computing experiences. Each year, approximately 32 percent of the student body utilizes these computer systems for class assignments in programming, problem solving, simulations and computer-assisted instruction.

Generally students interface with the computers at a Terminal Lab, located in the basement of the Library. Terminals and printers are available in the lab along with consultants to assist student users. In addition to the Terminal Lab, there are 10 Microcomputer Labs which provide access to more than 150 Apple and IBM microcomputers. Other terminals and microcomputers are located in various departments throughout the campus.

The computer systems available on campus are a Control Data Corporation (CDC) CYBER 170 model 720 for timesharing and batch processing, a Digital Equipment Corporation PDP 11/44 minicomputer and a PRIME Computer Model 9755 super-minicomputer. Access to a centrally located computer system, a CDC CYBER 170 model 760, is facilitated through communication links between the campus and the State University Data Center in Los Angeles. Access to any of these systems for class or special projects is available at no expense to all students, both graduates and undergraduates.

## **24 / Academic Program**

### **Scheduling of Classes**

Most five-unit courses meet for 200 minutes per week. Three basic plans are used in scheduling classes: three meetings per week (usually Monday-Wednesday-Friday), two meetings per week or one meeting. Principal exceptions occur among laboratory, activity and studio courses and courses which carry less than five units of credit.

The two-period, two-day-per-week format is utilized for Tuesday-Thursday classes and most late afternoon and evening courses; the single four-hour period format has been found most appropriate for certain evening and weekend classes. The University attempts to maintain accurate information about changing student needs and to adjust its class schedule accordingly.

### **International Programs**

The California State University (CSU) International Programs offers students the opportunity to continue their studies overseas for a full academic year while they remain enrolled at their home CSU campus. The International Programs' primary purposes are to enable selected students to gain a firsthand understanding of other areas of the world and to advance their knowledge and skills within specific academic disciplines in pursuit of established degree objectives.

A wide variety of academic majors may be accommodated by the 34 foreign universities cooperating with the International Programs in 16 countries around the globe. The affiliated institutions are: the University of Queensland (Australia); the University of Sao Paulo (Brazil); the universities of the Province of Quebec (Canada); the University of Copenhagen (through Denmark's International Student Committee's Study Division); the University of Provence (France); the Universities of Heidelberg and Tübingen (Germany); the Hebrew University of Jerusalem (Israel); the University of Florence (Italy); Waseda University (Japan); the Iberoamericana University (Mexico); Massey University and Lincoln University College (New Zealand); the Catholic University of Lima (Peru); National Chengchi University (Republic of China/Taiwan); the Universities of Granada and Madrid (Spain); the University of Uppsala (Sweden); Bradford and Bristol Universities and Kingston Polytechnic (the United Kingdom). Information on academic course offerings available at these locations is in the International Programs Bulletin which may be obtained from the International Programs representative on campus.

Eligibility for application is limited to those students who will have upper-division or graduate standing at a CSU campus by the time of departure, who possess a cumulative grade-point average of 2.75 or 3.0 depending on the program, for all college-level work completed at the time of application, and who will have completed required language or other preparatory study where applicable. Selection is competitive and is based on home-campus recommendations and the applicant's academic record. Final selection is made by the Office of International Programs in consultation with a statewide faculty selection committee.

The International Programs supports all tuition and administrative costs overseas for each of its participants to the same extent that such funds would be expended to support similar costs in California. Students assume responsibility for all personal costs, such as transportation, room and board, and living expenses, as well as for home campus fees. Because they remain enrolled at their home

CSU campus while studying overseas, International Programs students earn full resident credit for all academic work completed while abroad and remain eligible to receive any form of financial aid (other than work-study) for which they can individually qualify.

Information and application materials may be obtained from Dr. Mireille Rydell or Dr. Richard H. Rowland on campus or by writing to The California State University International Programs, 400 Golden Shore, Long Beach, California 90802-4275. Applications for the 1988-89 academic year overseas must be submitted by February 1, 1988.

### **National Student Exchange Program**

California State University, San Bernardino is a member of this cooperative program which allows selected students to spend up to a year at one of 70 colleges in more than 35 states. The exchange student pays either normal California State University, San Bernardino fees or "in state" tuition at the host institution.

This domestic exchange encourages students to see another part of their own country, live and work in a different academic environment, and pursue specialized courses not offered at Cal State. All course work taken while on exchange is approved by an advisor and then evaluated by the records office *before* leaving campus. Thus, there is no loss of time or credits.

Students normally apply in the winter of their freshman or sophomore year exchange and are screened and placed during March for the next academic year. To qualify, students must be a California resident, have a 2.5 grade point average, and complete a year of course work at California State University, San Bernardino after returning from the exchange. For information and applications, contact the NSE director in Pfau Library, Room 101 or telephone (714) 887-7662.

### **University Foundation**

The Foundation of the California State University, San Bernardino, a California nonprofit corporation, was established in 1962 for the purpose of promoting and assisting the educational services of the University. The Foundation Board of Trustees establishes policies for the administration of scholarship and loan funds, federal research grants and the operations of the Commons and Bookstore.

### **The CSU Desert Studies Center**

A fully-equipped desert field station, the Desert Studies Center, is available for use by CSU faculty and students. The center is located in the Eastern Mojave Desert, 11 miles southwest of Baker, California, at the western edge of the East Mojave National Scenic Area, and adjacent to areas of critical ecological concern.

The center contains the habitat of the Mohave Tui Chub, a federally registered, endangered species of fish. Dormitory, laboratory, classrooms and library facilities are available to support classes and individuals conducting independent study projects and research.

The center offers a variety of short-term courses on desert-related topics and hosts field-oriented courses in anthropology, archaeology, art, biology, geography, geology and history.

The School of Natural Sciences Office can supply information to those seeking to use or visit the Desert Studies Center.



### **Campus Tours**

Tours of the Cal State campus are available throughout the year, for individuals or groups. Student visitors interested in obtaining first-hand information about the University's programs or classes may arrange to meet with faculty or administrators. Individuals or small groups also may sit in on class lectures or visit the residence halls, if sufficient prior notice is given for arrangements to be made. Requests should be made through the Pre-college Outreach Office.





## ACADEMIC SUPPORT SERVICES

The University offers a wide range of academic support services designed to help students obtain their educational goals. These services include assistance with course work, personal counseling and support services for students from families with low incomes.

### Counseling and Testing

The Counseling and Testing Center aids students in developing their personal resources and in making full use of opportunities for growth during their college years. Services include individual counseling, support groups, couples therapy and family therapy. All services are strictly confidential and free to University students. Couples therapy and family therapy are free as long as one person is a registered student.

The center also administers tests applicable to admission, academic placement and academic achievement, including the American College Testing program (ACT) and Graduate Record Examinations (GRE). There is a charge for tests but not for the services of the center in giving them. Information and applications for other nationally administered tests used for college or graduate school entrance are also available from the center. The center is located in the Physical Sciences Building, Room 227, 887-7437.

### The Learning Center

The Learning Center provides individual and group tutoring in most academic areas. Seminars offered during each academic year focus on topics such as term paper preparation, college study and survival skills, geometry, memory training, reading concentration and preparing for exams. A two-unit college study skills course includes: how to succeed in college, listening and note taking, time management, preparing for exams, memory techniques, efficient use of exam time, taking objective exams and improving concentration. Services are designed to assist students of all ability levels.

Large lecture courses are taped, with the tapes maintained in the center. Cassette and video tapes of specific classes and foreign languages also are available to support classroom instruction. The center also maintains an ESL program, summer preparation program for new and transfer students and a complete computer tutorial program on PLATO. The Learning Center is located in the basement of the Pfau Library Building, Room 37, 887-7612.

### Educational Opportunity Program

The Educational Opportunity Program (EOP) is an admissions and support services program designed to assist students who meet specific income guidelines and demonstrate the potential to obtain a baccalaureate degree offered by the University. The services are available for a maximum of five years.

## **30 / Academic Support Services**

Through the Educational Opportunity Program, the student receives help in admissions, registration, financial aid, housing, curriculum planning, tutoring, counseling, job and graduate school placement and other support services, depending upon individual needs. EOP is located in the Student Services Building, Room 174, 887-7395.

### **SAIL Program**

The Student Assistance in Learning Program is a comprehensive retention program designed to assist students who are in need of improving their skills in one or all of the following areas: mathematics, reading, writing and study habits. In addition to providing personal and academic (probation) counseling, SAIL counselors facilitate a series of miniworkshops which constitute the lab sessions of Education 37, a two-unit course offered in conjunction with the Learning Center. Referrals to SAIL are made either by the student (self-referrals) or by faculty members who identify students who can benefit from SAIL services. SAIL is located in Trailer 1B, behind the Student Services Building, 887-7673.

### **Academic Services**

The Office of Academic Services counsels students who are subject to dismissal and monitors compliance with the entry-level mathematics test, English placement test and upper-division writing requirement. Located in the Advising Center, Pfau Library Building, Room 107, 887-7520, this office also coordinates undergraduate academic advising for all new students and undeclared majors.

### **The Advising Center**

The Advising Center provides specialized academic advising services to all new students and all students who have not yet declared a major (both new and continuing). Faculty at the Advising Center will provide an in-depth orientation to general education and individualized help with specific general education requirements (for example, catalog year requirements, entry-level mathematics test and English placement test scores and other testing information). They also will assist students in understanding their transfer credit summaries and with any problems involving university rules and regulations. Prospective students can obtain academic preadmissions counseling at the Advising Center.

The Advising Center is located in Pfau Library Building, Room 107, with access from the east side of the library. The phone number is 887-7520 or 880-7911.







## STUDENT LIFE

### Housing

Serrano Village, the University's on-campus housing facility, is a focal point of campus life for residential students. Social as well as educational activities are organized by the Village residents with the assistance of the housing staff, making the Village a center for living and learning with other students.

The Village is composed of eight attractive redwood houses. Each house has a main lounge, recreation room, kitchenette, laundry-workroom, sun deck and patio. Both single and double rooms are available. Rooms are arranged in suites so that no more than 10 students share a living room and bathroom facilities.

The Village has both indoor and outdoor recreational facilities. The indoor area contains pool tables, a ping-pong table, mail boxes and a conversational area. The outdoor recreational area contains a barbecue, patio, volleyball court, paddle tennis court, sun deck and a swimming pool.

Living on campus is reasonably priced when compared to the rapidly rising costs of commuting and has the added advantage of being near the University Library and other facilities. The rates for living in the Village include meals served at the nearby University Commons. The cost of a double room and meals is expected to be approximately \$3100 per year in 1987-88. Several convenient payment options are available. Serrano Village does not provide family housing or on-campus apartments for married students.

Any student needing information about housing, either on-campus or off-campus, should contact the Housing Office.

### Activities

The diverse interests and lifestyles of students are reflected in numerous activities sponsored by the University and Associated Students. These programs include dances, drama productions, choral concerts, quarterly festivals, musical concerts, guest lecturers and small group socials.

The University and the Associated Students encourage and aid formation of organizations which enhance the educational opportunities of students. These organizations involve students, faculty and staff working together in professional, recreational, educational, service, religious and cultural activities. University-recognized groups have full use of campus facilities in planning their programs.

All students are members of the Associated Students, which is governed by an elected Board of Directors. A.S. sponsors a book co-op, check-cashing service, emergency loan program, legal aid and other student-initiated services. A.S. also assists the Children's Center, campus newspaper and many University-wide programs.

"Escape" is the University and A.S.-sponsored outdoor leisure program. Students have the opportunity to discover and learn about California's outdoors while participating in recreational activities. An informal atmosphere is created which enables students to make new acquaintances, exchange ideas and be-



## **34 / Student Life**

come more socially aware. Past "Escape" activities have included backpacking, skiing, sailing, canoeing, and trips to amusement parks, sports events and theatrical productions.

### **Student Union**

The Student Union is designed to provide comfort, a relaxing environment and recreation for students of the University. The Union includes a spacious lounge area, a convenient snack bar, the Pub with its large-screen television, pool table, electronic games, and an outdoor beer garden. Offices for the Associated Students, the campus newspaper, meeting rooms for various organizations and a large multipurpose room used for dances, lectures and movies are part of the facility.

### **Intercollegiate Athletics**

An intercollegiate athletic program was implemented in the 1984-85 academic year. It is a NCAA, Division III program with cross country, basketball and tennis, for both women and men; volleyball and softball for women and soccer, golf and baseball for men.

Swimming for men and women and water polo for men are being added in the 1987-88 academic year. Other sports planned in the coming years are track and field for men and women and soccer for women.

The University mascot is the Coyote and the colors are light blue and brown.

### **Recreational Sports**

This program provides an opportunity for students, faculty and staff to participate in organized recreational sports activity.

A comprehensive schedule includes at least ten different intramural events each quarter, ranging from team sports to one-day individual activities. Some of the more popular programs are basketball, canoe races, flag football, street hockey, skiing, softball, volleyball and the annual turkey trot. Additional events will be offered to meet varying student interests.

Funding also may be provided, on a limited basis, for extramural athletic activities such as volleyball, softball and street hockey.

Specific information about the program is available at the Recreational Sports Office, Morongo residential house, Room 119.

### **Informal Recreation**

The gymnasium, weight room, racquetball courts, tennis courts and swimming pool are available for unstructured use. Individual students who wish to utilize these facilities are encouraged to do so.

A large inventory of recreational equipment also is available for check-out to anyone possessing a valid California State University, San Bernardino identification card.

### **Outdoor Recreation**

Since the campus is located only about 45 minutes from mountains, beaches and desert, students have a unique opportunity to explore a variety of recreational activities. The Associated Students provides equipment which may be rented in the Student Union for backpacking and camping.

## **Career Planning and Placement**

Services of the Career Planning and Placement Center are available to all students and alumni of the University. Services include career exploration seminars and workshops, advisement on employment and salary trends, counseling about personal satisfaction in career employment, vocational testing service and placement services for graduating seniors, graduate students and alumni. In addition the Placement Center assists enrolled students who are seeking part-time and vacation employment.

Students contemplating attending graduate school may have their original letters of recommendation maintained and transmitted to graduate and professional schools upon request with the establishment of a graduate school file.

The Placement Center serves as a repository for career placement files for the University's qualified degree and credential candidates who register for placement service. There is no placement services charge for current students. A nominal fee is charged to alumni. The fee begins one calendar year after the end of the registrant's student status.

## **Career Placement Information**

The campus may furnish, upon request, information concerning the subsequent employment of students who graduate from programs or courses of study which have the purpose of preparing students for a particular career field. This information includes data concerning average starting salary and the percentage of previously enrolled students who obtained employment. The information provided may include data collected from either graduates of this University or graduates of all campuses in The California State University. Copies of the published information are available in the Career Planning and Placement Center and the Relations with Schools Office.

## **Financial Aid**

The Financial Aid Office administers a variety of programs to assist qualified students. Sources of aid include the federally sponsored Pell and Supplemental Educational Opportunity Grants, National Direct Student Loans and the College Work-Study program. California Guaranteed Student Loans and California loans to assist students are also available. Short-term loans are available for financial crises which require funds rapidly. The office also administers State University Grants and Educational Opportunity Program grants.

For a student interested in working part-time, on or off campus, assistance in obtaining a job is available through the Placement Office.

All applications for scholarships and financial aid must be completed and in the Financial Aid Office by March 1. Late applications are accepted after March 1 and throughout the school year if funds are available. Applicants are required to submit a copy of the student's and/or parent's most recent federal income tax return and the financial need analysis obtained through the College Scholarship Service. Necessary forms can be obtained from high schools, community colleges or the University.

A full description of the University's financial aid programs is available in the free financial aid brochure.

## Scholarships

The scholarships listed below are awarded to new and continuing students in accordance with the terms of the gifts. Scholarship applications are accepted until March 1. Contact the Financial Aid Office for details. Generally, students must possess a minimum grade-point average of 3.0 (B). Ordinarily, students applying for scholarships are considered for any for which they may be eligible.

The Association of Hispanic Faculty and Staff provides approximately \$800 in scholarships to students who have evidenced an interest in Hispanic cultures.

The California Parent-Teachers Association (PTA) provides a \$350 scholarship to upper-division or graduate students entering the field of teaching. The student must be a citizen, of good character, possess a superior academic record, need financial assistance and make a commitment to teach in California for one year.

The California Retired Teachers Association provides a \$500 scholarship to a senior or graduate student entering the field of teaching. The student is selected on the basis of financial need, academic achievement and school and community activities.

The California State University, San Bernardino Alumni Association provides \$1200 in scholarships of varying amounts to students exhibiting financial need, academic superiority and community involvement.

The California State University, San Bernardino Alumni Association, Education Chapter, offers two \$200 scholarships to graduate students in education.

The California State University, San Bernardino Associates provides two scholarships totalling \$800 to upper-division students who possess a superior academic record, financial need and a record of good citizenship.

The California State University, San Bernardino Economics Department awards two Janczyk Family Scholarships, totaling \$300, and the John Winn Kennedy Scholarship of \$200 to economics majors.

The California State University, San Bernardino Music Department provides 25 merit scholarships totaling \$1650 to students who have demonstrated above-average proficiency with a musical instrument and have performed with a related University organization.

The California State University, San Bernardino Theatre Arts Department provides 10 scholarships totaling \$1400 to students who have demonstrated excellence in the field of theatre arts.

The Del Rosa Grange Scholarship is an unrestricted annual award of approximately \$200.

The Foundation for California State University, San Bernardino provides approximately \$2650 in scholarships to continuing students with superior academic records and financial need. The Faculty and Staff Memorial Scholarship Fund, managed by the Foundation, contains tributes to former faculty including Dr. Mary Cisar (died 1971), Dr. Walter Zoecklein (1975), Dr. Florence Mote (1977), Dr. Neville Spencer (1977), Dr. James Finley (1980) Dr. William Gean (1980), Dr. Alfred Egge (1982), Dr. Marvin Frost (1983), Dr. Robert R. Roberts (1984) and Dr. Margaret Lenz (1987).

The Anthony and Lois Evans Scholarship is awarded to a student with a minimum GPA of 3.5 who is involved in student performance activities such as music, theatre art or debate/forensics. The annual award is approximately \$200.

The Leslie I. Harris/Bennet Meyers Memorial Fund provides two four-year scholarships of \$1,200 per year to high school graduates from the San Bernardino

area with outstanding academic records (3.5 grade-point average) and involvement in school activities.

The Douglas A. Housel Memorial Scholarship provides \$200 annually, with preference given to a history major.

Alfred F. and Chella D. Moore Scholarship Fund provides approximately \$19,200 in scholarships to incoming freshmen with outstanding academic records (3.5 grade-point average minimum). The amount of each award is \$1200; some awards may automatically be renewed for an additional three years for a total of \$4800. No special application is required for renewal.

The Alan Pattee Scholarship is provided to the children of California law enforcement personnel or firemen who are killed in the performance of official duties within the State of California. The amount of the scholarship is equal to the cost of tuition and mandatory registration fees.

Professional Food-Service Management provides \$1000 in unrestricted scholarships.

The Riverside Foundation/Leon S. Heseman Scholarship Fund provides \$10,000 for scholarships to undergraduate students with superior academic records, financial need and records of good citizenship. Preference is given to residents of Riverside and San Bernardino counties. Typically, scholarships average \$650.

The San Bernardino Career Ladder Scholarship provides \$750 which may be used for summer school fees for a person who currently works as a classified employee in the San Bernardino City Unified School District.

The San Bernardino Teacher Retraining Scholarship provides \$500 which may be used toward summer school fees for a person who currently teaches in the San Bernardino City Unified School district.

The Nancy E. Smith Scholarship is provided to a full-time student majoring in public administration or political science who intends to pursue a career in public service. The amount of the award is \$400.

The Union Pacific Foundation provides a \$1000 scholarship to a graduate student at the University majoring in business administration.

The William H. Wilson Scholarship is an annual scholarship provided to a full-time student at California State University, San Bernardino, preferably from the immediate San Bernardino area. Applicants must demonstrate economic need. The scholarship will average \$350. Ordinarily, the scholarship will be given to a different student each year, but under special, extenuating circumstances, it may be renewed.

Many students qualify for assistance through other programs not administered by the University. They include veterans benefits, dependents of disabled or deceased veterans, Social Security Administration, State Department of Rehabilitation, Bureau of Indian Affairs and other public assistance agencies.

The Western Association of Food Chains offers five \$1000 scholarships to business administration majors with a career emphasis in the food industry.

*Cal Grant A/B, Bilingual Teacher Grants and Graduate Fellowships.* Students apply directly to the California Student Aid Commission for these state-sponsored awards which cover a portion of the expense of required fees. Application blanks and full information on these awards are available at high schools, community colleges and California State University, San Bernardino.

A table summarizing some of the financial aid resources follows on the next page.

### **International Students**

The International Student Program Office is the primary contact for foreign students including new immigrant and permanent resident students who are nationals of other countries. The office aids students in becoming accustomed to living and studying at the University. It provides information about academic procedures, such as special admission requirements for students from abroad, (see Admission: International Students) and governmental and legal aspects of their stay (for example, issuance of form I-20), restrictions on employment and the academic requirements that must be met to retain a student visa.

Counseling is available for personal problems such as adjusting to living in a new cultural environment and working in a new educational setting as well as the types of personal problems encountered by all students. The International Student Program Office is in the Pfau Library Building, Room 101.

### **Student Affirmative Action**

The Student Affirmative Action (SAA) Program is designed to provide encouragement, assistance and information to junior high school students regarding opportunities in higher education. The primary objective of this special outreach effort is to increase the number of students coming from under-represented ethnic groups and to provide them with educational support services once admitted. Recruitment is focused on students who are likely to be regularly admissible to four-year colleges, but who have not necessarily considered a college education. Referral services are also provided to students who need special admissions. Special efforts also are made to involve parents. Campus tours and home visitations may be arranged upon request.

### **Upward Bound Program**

The Upward Bound Program is a university preparatory program which provides low income, first generation, university-bound students, demonstrating a potential to succeed in college, with academic assistance and career guidance in anticipation of their enrollment in a four-year college or university.

Selected students participate in a university-based, year-long academic program which emphasizes basic skills through classroom instruction and individualized tutoring. In addition, the students are involved in special enrichment activities such as career workshops, cultural events and a variety of recreational/social activities.

A unique feature of the Upward Bound Program is the summer residential program wherein students are housed in Serrano Village, the university's on-campus housing facility, for an intensive seven-week academic program designed to simulate a total university environment.

## Financial Aid Chart

<i>Types of aid</i>	<i>Who can help</i>	<i>Determination of eligibility</i>	<i>Repayment requirement</i>
A. Scholarships Local scholarships University scholarships	High school or college counselor University financial aid officer	GPA, need GPA or GPA and need	no no
B. Grants Pell Grant Supplemental Educational Opportunity Grant Cal Grant A/B, Bilingual Teacher Grants and Fellowships Educational Opportunity Program Grant State University Grant	High school or college counselor University financial aid officer High school or college counselor University E.O.P. director or aid officer	need need GPA, need need need	no no no no no
C. Loans National Direct Student Loan California Insured Student Loan California loans to assist students	University financial aid officer University financial aid officer University financial aid officer	need need enrollment	yes yes yes
D. Work-study University work-study program	University financial aid officer	need	no
E. On and off-campus part-time jobs	University placement advisors	--	--

Other aid-related programs are available through the Veterans Administration, California State Rehabilitation, ROTC, Social Security, Bureau of Indian Affairs and other public assistance agencies.

### **Student Health Center**

The Student Health Center provides all services normally administered in an acute-care clinic and contains a pharmacy. Services, available during posted hours, include minor surgery, dermatology, basic emergency care, family planning and gynecological care. The Health Center is supported by student fees paid at registration and all regularly enrolled students are eligible for services.

A low-cost supplementary insurance plan is available to all regularly enrolled students through a private insurance company. This plan covers services not available at the Health Center.

### **Services to Students with Disabilities**

The responsibility of this office is to offer aid to students who have a temporary or a permanent disability. A professional staff assists students with specialized academic support, counseling and educational programs.

Academic support services available include reader services for the vision-impaired, interpreter services for the hearing-impaired, assistance with typing, test writing and notetaking. Counseling for disability-related problems and university adjustment situations as well as specialized vocational testing and planning are provided. The staff helps to meet the educational needs of each student by arranging classroom accommodations and providing adaptive equipment. Assistance also is available to arrange for modified dormitory accommodations and to stimulate interest in social life at the University.

Prospective students are encouraged to contact the office to arrange appointments for admission information and campus orientation tours. The office is located in the Pfau Library, Room 101. The telephone number is (714) 887-7662 Voice/TDD.

### **Department of Public Safety**

The Department of Public Safety (Campus Police) is a fully certified law enforcement agency with primary responsibility for service and protection of the university community.

All officers are empowered by law to enforce all laws of the state of California. Receiving basic and advanced training at a regional sheriff's academy, the officers are professional peace officers.

The department provides a full range of services including crime prevention, criminal investigations, traffic control, patrol, plant security and environmental health services. Services provided to the campus community include property identification, lost and found, jumper cables and assistance to motorists locked out of their cars.

All services are provided 24 hours a day and may be obtained by dialing extension 7557 in emergencies and 7555 for all other requests.

### **Dean of Students**

The Dean of Students Office provides general information concerning campus policies, procedures and regulations and offers help to students seeking to resolve a campus problem. Students needing assistance with any University matter are invited to begin with this office. Specific policies regarding student grievances, discipline and emergency calls for students are administered by this office. A more complete statement on student privacy rights appears in the Appendix.

### **Children's Center**

The Children's Center is a child development program which accommodates children of University students, faculty and staff as well as people from the community when space is available. The center is open during the academic year (Monday through Thursday, 7:30 a.m. to 8 p.m. and Friday, 7:30 a.m. to 4 p.m.) for children two years (toilet trained) to 14 years. Additional information regarding fees and space availability may be obtained by calling the Children Center Office, at 887-7724.

### **Alumni Association**

All graduates of the University are eligible to join and participate in the activities of the California State University, San Bernardino Alumni Association. Also eligible are those who earn credentials through the University and members of the senior class.

The purpose of the nonprofit association is to: assist alumni in continued cultural and educational development, further the community interests of the University, establish mutually beneficial relationships between the University and its alumni, and promote the educational goals of the University. Additional information may be obtained from the Alumni Affairs Office.

### **The Commons**

The Commons, one of the social centers of the campus, serves residential and commuter students, faculty and staff. The facility offers an attractive view of the mountains which provides a pleasant atmosphere for eating and relaxing.

### **Bookstore**

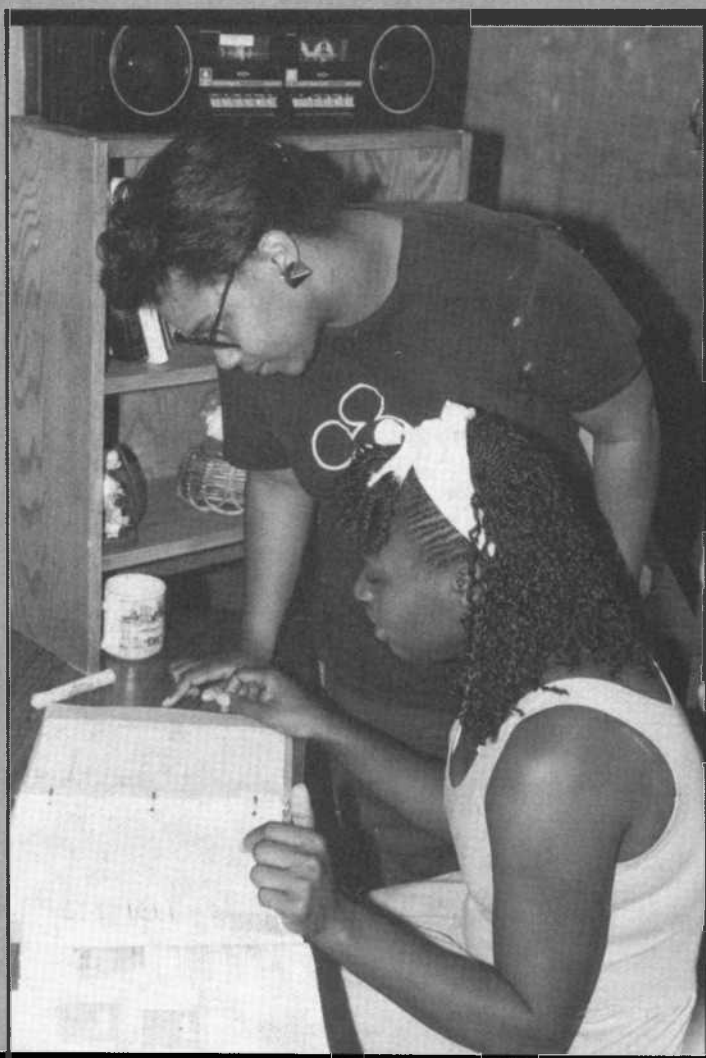
Students are able to purchase or order books and supplies needed for classes plus tapes, class rings and personal items from the on-campus Bookstore, owned and operated by the University Foundation. The Coyote Bookstore is a nonprofit operation, with proceeds used to further the educational aims of the University.

### **Student Responsibility**

Students at the University are subject to all federal, state and local laws as are other citizens. Of particular importance are regulations established by the State of California through its Education Code. In addition, Board of Trustees and local University regulations directly affect student life on campus. Students are responsible for their behavior on campus and are expected to comply with all policies and regulations which are posted and/or printed in University publications. Copies of all policies which affect students are available at the Dean of Students Office. The Student Conduct Code, which relates to student disciplinary matters, appears in the Appendix of this Bulletin.









## ADMISSION TO THE UNIVERSITY

Requirements for admission to the California State University, San Bernardino are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Administrative Code. Prospective applicants who are unsure of their status under these requirements are encouraged to consult a high school or community college counselor or the Admissions Office. Applications may be obtained from the admissions office at any of the campuses of The California State University or at any California high school or community college.

The CSU advises prospective students that they must supply complete and accurate information on the application for admission, residence questionnaire and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate and authentic application documents may result in denial of admission, cancellation of academic credit, suspension or expulsion (Section 41301, Article 1.1, Title 5, California Administrative Code).

Students who are admitted to the University for a given term but who do not register in that term must file a new application form and \$35 application fee when they again seek admission and must meet the then current admission requirements.

### **Undergraduate Application Procedures**

Prospective students, applying for part-time or full-time programs of study, in day or evening classes, must file a complete application as described in the admissions booklet. The \$35 nonrefundable application fee should be in the form of a check or money order payable to The California State University and may not be transferred or used to apply to another term.

Applicants need file only at their first choice campus. An alternative choice campus and major may be indicated on the application, but applicants should list as an alternative campus only that campus of The California State University that they can attend. Generally, an alternative major will be considered at the first choice campus before an application is redirected to an alternative choice campus. Applicants will be considered automatically at the alternative choice campus if the first choice campus cannot accommodate them.

### **Impacted Programs**

The CSU designates programs to be impacted when more applications are received in the first month of the filing period than the spaces available. Some programs are impacted at every campus where they are offered; others are impacted at some campuses but not all. Students must meet supplementary admissions criteria when applying to an impacted program.

## **46 / Admission**

The CSU will announce before the opening of the fall filing period which programs are impacted and the supplementary criteria campuses will use. That announcement will be published in the CSU School and College Review, distributed to high school and college counselors. The CSU also will give information about the supplementary criteria to program applicants.

Students must file their applications for admission to an impacted program during the first month of the filing period. Further, if they wish to be considered in impacted programs at two or more campuses, they must file an application to each. Nonresident applicants are rarely admitted to impacted programs.

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade-point average and a combination of campus-developed criteria. Students required to submit scores on either the SAT or the Act should take the test no later than December if applying for fall admission. The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the CSU School and College Review and are sent by the campuses to all applicants seeking admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs, who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major but may choose an alternative major either at the first choice campus or another campus.

### **Graduate and Postbaccalaureate Application Procedures**

All graduate and postbaccalaureate applicants (for example, master's degree applicants, those seeking credentials and those interested in taking courses for personal or professional growth) must file a complete application as described in the admissions booklet. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$35 nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternative campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary for any applicant to submit separate applications (including fees) to each. Applications may be obtained from the Graduate Studies Office of any California State University campus in addition to the sources noted for undergraduate applicants.

### Application Filing Periods

<i>Terms in 1987-88</i>	<i>First accepted</i>	<i>Filing period duration</i>	<i>Student notification begins</i>
Summer quarter 1987	Feb. 1, 1987	Each campus accepts applications until capacities are reached.	March 1987
Fall semester or quarter 1987	Nov. 1, 1986	Most campuses accept applications up to a month prior to the opening day of the term.	Dec. 1986
Winter Quarter 1988	June 1, 1987	Some campuses will close individual programs earlier.	July 1987
Spring semester or quarter 1988	Aug. 1, 1987		Sept. 1987

### Application Acknowledgment

Students may expect to receive an acknowledgment of their application from their first-choice campus within two to four weeks of filing the application. A notice that space has been reserved will also include a request that they submit the records necessary for the campus to evaluate their qualifications. Students may be assured of admission if the evaluation of their qualifications indicates they meet admission requirements. Such a notice is not transferable to another term or to another campus.

### Hardship Petitions

The campus has established procedures for considering qualified applicants who would be faced with an extreme hardship if not admitted. Prospective hardship petitioners should contact the University regarding specific policies governing hardship admission.

### Undergraduate Admission Requirements

#### *First-Time Freshman Applicants*

Students will qualify for regular admission as a first-time freshman if they

1. are high school graduates,
2. have a qualifiable eligibility index (see below), and
3. have completed with grades of C or better at least four years of college preparatory English and at least two years of college preparatory mathematics.

*Eligibility Index*—The eligibility index is the combination of the high school grade-point average and the score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For this purpose, the university computes the grade-point average on the final three years of high school studies, excluding physical education and military science, and uses bonus points for certain honors courses. CSU may offer students early, provisional admission based on work completed through the junior year of high school and planned for the senior year.

Students can calculate the index by multiplying their grade-point average by 800 and adding their total score on the SAT. Or, if they took the ACT, multiply the grade-point average by 200 and add ten times the composite score from the ACT. California high school graduates (or legal residents of California for tuition purposes) need a minimum index of 2994 using the SAT or 722 using the ACT.

## 48 / Admission

The table on Page 458 shows the combinations of test scores and averages required. Students who neither graduated from a California high school nor are a resident of California for tuition purposes need a minimum index of 3402 (SAT) or 822 (ACT).

Applicants with grade-point averages above 3.10 (3.60 for nonresidents) are exempt from the test requirement.

### Fall 1988 Admission Requirements

Effective with fall 1988 term and thereafter, first-time freshman applicants shall be required to include the following comprehensive pattern of collegiate preparatory subjects in their preparatory studies with grades of C or better:

English, 4 years (presently required).

Mathematics, 3 years (2 years presently required): algebra, geometry, and intermediate algebra.

U.S. History or U.S. History and Government, 1 year.

Science, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science.

Foreign language, 2 years in the same language (subject to waiver for applicants demonstrating equivalent competence).

Visual and performing arts, 1 year: art, dance, drama/theater, or music. Acceptable courses will combine theory and practice and meet the State Board of Education's Model Curriculum Standards, Grades Nine Through Twelve: Visual and Performing Arts.

Electives, 3 years: courses selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts and agriculture.

Other admission criteria, in addition to the preparatory subjects, include graduation from high school (or equivalent) and a qualifiable eligibility index as defined.

To phase in the 1988 standards for admission, California State University will provide for the conditional admission of applicants otherwise admissible but who are missing a limited number of the required subjects.

Conditional admission is an alternative means to establish eligibility for admission. Applicants otherwise eligible for regular admission, but missing a limited number of the preparatory subjects, will be regularly admitted on condition that they make up the missing subjects early in their baccalaureate studies. Students will not be denied admission during the phase-in period simply because they lack a limited part of the required pattern.

Under the plan, the minimum number of subjects to be completed each year will be:

Fall 1988: at least 10 of the required 15 units

Fall 1989: at least 12 of the required 15 units

Fall 1990 and fall 1991: at least 14 of the required 15 units.

In each of these years, applicants will be expected to include at least 6 of the 7 units required in English and mathematics.

By fall 1992, the CSU will expect all freshman applicants to have completed all required subjects.



## Transfer Applicants

Applicants will qualify for admission as transfer students if they have a grade-point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the following standard:

- (a) were eligible as a freshman, or
- (b) were eligible as a freshman except for the college preparatory subjects in English and mathematics and have satisfied the subject deficiencies, or
- (c) have completed at least 56 transferable semester (84 quarter) units and have satisfied any deficiencies in college preparatory English and mathematics. (Nonresidents must have a 2.4 grade-point average or better.)

For these requirements, transferable courses are those designated for that purpose by the college or university offering the courses.

## Subject Requirements

The California State University requires that all undergraduate applicants for admission complete with a C or better four years of college preparatory study in English and two years of college preparatory mathematics, or their equivalent. California secondary school courses that meet the subject requirements are listed on "Courses to Meet Requirements for Admission to the University of California," published for, and available at, each high school.

*English*—Regular English courses in the 9th and 10th grades that integrate reading and writing will be considered college preparatory. English courses in the 11th and 12th grades will be considered college preparatory if (1) they include writing instruction and evaluation, and require substantial amounts of writing of extensive, structured papers, expressive and analytical, demanding a high level of thinking skills; and (2) they are integrated with challenging, in-depth reading of significant literature.

Courses in speech, drama or journalism will be considered college preparatory if they meet the criteria for 11th and 12th grade courses. Two consecutive semesters of advanced English as a Second Language may be substituted for two semesters of college preparatory English. Remedial reading and writing courses at any level will not be accepted nor will courses in beginning or intermediate English as a Second Language.

*Mathematics*—College preparatory courses in mathematics include algebra, geometry, trigonometry, calculus and mathematical analysis. Most students will have taken at least algebra and geometry or two years of algebra. Business or technical mathematics, arithmetic or prealgebra are not considered college preparatory.

Students may still qualify for regular admission *on condition* if they are missing no more than two semesters of the required courses in English and mathematics.

## Additional College Preparatory Courses Recommended

Most academic advisors agree that preparation for university study includes preparation in subjects beyond four years of English and two years of mathematics. Please see the section elsewhere in this catalog on admission requirements for 1988. Bachelor's degree curricula build upon previous study in the natural sciences, social sciences, visual and performing arts, foreign languages and



## 50 / Admission

the humanities. Students planning to major in mathematics, the sciences (including computer science), engineering, premedicine, other science-related fields, business or economics should complete four years of college preparatory mathematics. Students in the social sciences and preprofessional fields of study should include at least three years of mathematics in the preparatory studies. Further, all students should include English and mathematics in the final year of high school.

### Provisional Admission

Beginning with fall term 1987, campuses may provisionally admit first-time freshman applicants based on their academic preparation through the junior year of high school. California State University, San Bernardino will monitor the senior year of study of those provisionally admitted to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school.

Students should note the section on Fall 1988 Admission Requirements on Page 48.

### Honors Courses

Grades in up to eight semester courses, taken in the last two years of high school, that are designated honors in approved subjects receive additional points in grade-point average calculations. Each unit of A in approved courses will receive a total of 5 points; B, 4 points; C, 3 points; D, 1 point; and none for F grades.

### Test Requirements

Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college work must submit scores from either the Scholastic Aptitude Test of the College Board (SAT) or the American College Test Program (ACT). At San Luis Obispo, test scores are required of all transfer applicants. Applicants may get registration forms and the dates for either test from school or college counselors, a campus Testing Office or may write to:

The College Board (SAT)

Registration Unit, Box 592  
Princeton, New Jersey 08541

American College Testing Program  
(ACT)

Registration Unit, P.O. Box 168  
Iowa City, Iowa 52240

### TOEFL Requirement

All undergraduate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who have not attended for a least three years schools at the secondary level or above where English is the principal language of instruction must earn a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Individual campuses may require a higher score. Graduate students or students applying for a second B.A. see Page 93.

### Systemwide Tests Required of Most New Students

The CSU requires new students to be tested in English and mathematics after they are admitted. These are not admission tests, but a way to determine if they

are prepared for college work and, if not, to counsel them how to strengthen their preparation. They might be exempted from one or both of the tests if they have scored well on other specified tests or completed appropriate courses.

*English Placement Test (EPT)*—The CSU English Placement Test must be completed by all new undergraduate students \* with the exception of those who present proof of one of the following:

- a score of 3, 4 or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Advanced Placement Program;
- a satisfactory score on the CSU English Equivalency Examination;
- a score of 510 or above on the verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal);
- a score of 23 or above on the ACT English Usage Test;
- a score of 600 or above on the College Board Achievement Test in English composition with essay;
- completion of an acceptable college course in English composition of four quarter or three semester units with a grade of C or better.

*Entry Level Mathematics (ELM) Test*—All new undergraduate students must take the test and pass it before enrolling in a course that satisfies the college-level mathematics requirement of the general education-breadth program. Exemptions from the test are given only to those students who can present proof of one of the following:

- a score of 3 or above on the College Board Advanced Placement Mathematics examination (AB or BC);
- a score of 530 or above on the Mathematics section of the Scholastic Aptitude Test (SAT-Math);
- a score of 23 or above on the ACT Mathematics Test;
- a score of 520 or above on the College Board Math Achievement Test, Level 1;
- a score of 540 or above on the College Board Math Achievement Test, Level 2;
- completion of a college course that satisfies the general education-breadth requirements in quantitative reasoning, provided it is at the level of intermediate algebra or above with a grade of C or better.\*\*

Failure to take either of these tests, as required, at the earliest opportunity after admission may lead to administrative probation, which, according to Section 41300.1 of Title 5, California Administrative Code, and CSU Executive Order 393, may lead to disqualification from future attendance.

Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Admissions and Records.

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\* This applies to all non-exempt students with fewer than 56 transferable semester units. It also applies to those non-exempt students with 56 or more transferable units who are subject to the 1986-87 or later campus catalog or bulletin.

\*\* Courses taken fall 1988 or thereafter must be at a level above that of intermediate algebra in order to qualify for exemption.

### **Measles and Rubella Immunizations Health Screening Provisions**

The campus shall notify certain students, born after January 1, 1957, of the CSU requirement to present proof of measles and rubella immunizations by the beginning of the next term of enrollment. At the beginning of the next term of enrollment, those so notified who have not presented acceptable proof of the immunizations shall be notified further of the need to comply before receiving registration materials to enroll for the succeeding term.

Persons subject to these health screening provisions include:

New students enrolling fall 1986 and later;

Readmitted students reenrolling fall 1986 and later;

Students who reside in campus residence halls;

Students who obtained their primary and secondary schooling outside the United States;

Students enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children, school-age children, or taking place in a hospital or health care setting.

The Student Health Center shall provide immunizations without cost to those students unable to obtain acceptable proof of immunizations.

### **Adult Students**

As an alternative to regular admission criteria, an applicant who is 25 years of age or older may be considered for admission as an adult student if he or she meets the following basic conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development or the California High School Proficiency Examination).
2. Has not been enrolled in college as a full-time student for more than one term during the past five years.
3. If there has been any college attendance in the past five years, has earned a C average or better.

Consideration will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language and mathematical computation.

### **Graduation Requirement in Writing Proficiency**

All students must demonstrate competency in writing skills as a requirement for graduation. Information on currently available ways to meet this graduation requirement may be found on Page 85.

### **International (foreign) Students**

California State University uses separate requirements and application filing dates in the admission of foreign students. For these purposes, foreign students are residents of a country other than the United States or those who hold visas as students, exchange visitors or in other nonimmigrant classifications.

Applicants for admission as either graduates or undergraduates whose education has been in a foreign country should file an application for admission, official certificates and detailed transcripts of record from each secondary school and collegiate institution attended several months in advance of the opening of the quarter in which the applicant expects to attend. If certificates and transcripts are not in English, they should be accompanied by certified English translations. Credentials will be evaluated in accordance with the general regulations governing admission to California State University, San Bernardino.

An applicant whose education has been in a language other than English must take the Test of English as a Foreign Language (TOEFL). This test is administered in most foreign countries and test scores must be received by the University before admission to the University can be granted. Information as to the time and place at which this test is given may be obtained from: Educational Testing Service (TOEFL), Princeton, New Jersey 08540, U.S.A.

Foreign applicants must also submit a statement of financial responsibility to the Office of Admissions to be considered for admission to the University. Also, foreign students are required to submit evidence of adequate medical/hospital insurance to the international student advisor.

Arrangements for housing should be completed before the student's arrival on the campus. Detailed information regarding housing may be obtained from the director of housing, California State University, San Bernardino. Scholarship aid for entering students is limited; no scholarships are specifically reserved for students from another country.

Upon arrival at California State University, San Bernardino the student should obtain an appointment as early as possible with the International Student Services Office.

### **Admission of Postbaccalaureate and Graduate Students**

Requirements pertaining to the admission of postbaccalaureate and graduate students are contained in the section on Graduate Programs, Page 91.

### **Returning Students**

Students in good standing may be readmitted to the University after an absence of one term by notifying the Registration Office. The application and fee of \$35 are required if the student was not enrolled in any of the three terms (excluding summer session) prior to the term for which he is seeking admission or if he was enrolled in another institution during his absence from the California State University, San Bernardino. (See leave of absence Page 70.)

### **High School Students**

Students still enrolled in high school will be considered for enrollment in certain special programs if recommended by the principal and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment. The University's High School-University Program enables qualified high school juniors and seniors to enroll in university classes at times convenient to their high school schedules. A brochure describing the program is available from the Office of Admissions or the Pre-College Outreach Program Office.

**Other Applicants**

An applicant not admissible under one of the above provisions should enroll in a community college or other appropriate institution. Only under the most unusual circumstances will such applicants be permitted to enroll in the University. Permission is granted only by special action of the University.

**Transfer of Credit**

A maximum of 70 semester units (105 quarter units) of work taken at a community college can be applied toward the requirements for a degree from the University. No upper-division credit may be allowed for courses taken in a community college. No credit may be allowed for professional courses in education taken at a community college, other than an introduction to education course.

The Office of Admissions will evaluate previous college work to determine its applicability to the requirements of the University. All undergraduate degree candidates will be issued a credit summary, indicating requirements which remain unfilled. Once issued to a student, the credit summary remains valid as long as the student matriculates at the date specified, pursues the objective specified, and remains in continuous attendance. Students will not be held to additional graduation requirements unless such requirements become mandatory as a result of changes in the California Administrative Code or the California Education Code.

Credit for work completed at institutions of recognized accreditation will be accepted toward the satisfaction of degree requirements at the University within limitations of residence and major requirements, community college transfer maximums, and course applicability.

**Credit for Standardized External Examinations and Systemwide Examinations**

The University shall grant four and a half quarter units of credit for each of the following College Level Examination Program (CLEP) examinations passed at the 50th percentile, provided the examination was not taken previously within the past term and that degree credit has not been granted for previous course work at the equivalent or at a more advanced level than for the examination in question.

U.S. History	Mathematics (1975 edition)
Social Science	Fine Arts
Biological Science	Literature
Physical Science	

The University may also grant credit and advanced standing for CLEP subject examinations, using as minimum standards:

1. That the student submit a score at or above the 50th percentile in the norming group who earned a mark of C or better;
2. That equivalency to CSUSB courses be determined by the appropriate academic department;
3. That college credit shall have not been previously earned in the courses in question.

Questions regarding the acceptance of other standardized external examinations should be directed to the Office of Admissions.

In no case will credit awarded through external examinations count towards residence credit.

**English Equivalency Examination**—Students passing the California State University English equivalency examination shall be awarded 9 quarter units of credit provided credit has not been granted previously at the equivalent or at more advanced levels. Further, those who pass this optional examination are exempt from the requirement to take the English Placement Test.

The total amount of credit earned on the basis of externally developed tests which may be applied to a baccalaureate degree shall not exceed 45 quarter units, except that advanced placement credit is excluded from the limit.

### **Credit by Advanced Placement**

Students who have successfully completed courses in the Advanced Placement Program of the College Entrance Examination Board (defined as receiving a score of 3, 4 or 5) shall be granted credit for each advanced placement course toward graduation, advanced placement in the university's sequence of courses and credit for curriculum requirements.

### **Credit for Extension and Correspondence Courses**

A maximum of 36 quarter units of credit earned through extension may be applied to a baccalaureate degree program. A maximum of 13 quarter units of graduate credit earned through extension registration may be accepted toward a master's degree program. No credit so earned may be used to satisfy the university residence requirement.

Only those credits will be accepted for transfer which are acceptable toward a degree or credential at the institution offering the courses.

### **Credit for Military Service**

The University grants nine quarter units of lower-division undergraduate credit to veterans with a minimum of one year of active duty in the armed forces of the United States. This credit is applied as electives and may not apply toward the requirements in general education.

A limited amount of additional credit may be granted to students who have completed certain service schools in addition to basic training. This credit is allowed on the basis of recommendations of the Commission on Educational Credit and Credentials of the American Council on Education.

The total amount of credit earned on the basis of externally developed tests and through recommendations of the commission, which may be applied to a baccalaureate degree, shall not exceed 45 quarter units, except that advanced placement credit is excluded from the limit.

### **Admission to Teaching Credential Programs**

Admission to the University as a student does not constitute admission to a teaching credential program. Students who intend to work toward credentials also should make application to the School of Education of the University.

### **Admission as an Auditor**

A student who wishes only to audit a course instead of enrolling for credit must complete a statement of residence issued by the Office of Admissions and

## 56 / Admission

Records. Auditors must pay the same fees as would be charged if the courses were taken for credit. Enrollment as an auditor is subject to the approval of the instructor. A student registered as an auditor may be required to participate in any or all classroom activities at the discretion of the instructor. Credit for courses audited will not be subsequently granted on the basis of the audit. Transcripts are not issued for students enrolled as auditors only.

Permission to register as an auditor is by appointment with the Registrar after walk-through registration.

### Admission to Summer Session

Students interested in attending summer session only do not need to file an application for admission to the University. Instructions for applying for summer session only are included in the Summer Session Bulletin. Attendance at summer session does not automatically constitute admission to the University for ensuing regular terms.

### Readmission of Previously Disqualified Students

After receiving notice of disqualification, a student may petition the associate dean of academic programs for readmission to the University on probation. All petitions for readmission must be submitted to the Office of the Associate Dean of Academic Services according to the following schedule:

Petition for:

Fall  
Winter  
Spring

Petition on file on or before:

August 1  
November 1  
February 1

### Admission on Academic Probation

An applicant with advanced undergraduate standing who does not meet the requirements stated above is eligible for admission on probation, if, in the opinion of the proper university authorities, he is likely to succeed in college.

Ordinarily, consideration for probationary admission is granted only to the mature applicant who, while his total college record does not meet the admission requirements, has demonstrated sufficient academic ability through college work recently completed elsewhere.

Applicants who are admitted with a grade-point deficiency are given probationary status and are subject to the probation and disqualification regulations as stated on Page 74. A student admitted on probationary status may be restricted by his advisor to a limited program.

### Determination of Residence

The determination of whether a student qualifies as a resident for admission and tuition purposes is made by the University after review of a residence questionnaire, designed to provide necessary information including the applicability of any exceptions. A statement summarizing the principal rules regarding residency determination and their exceptions is included in the appendix.

### **Use of Social Security Number**

Applicants are required to include their social security number in designated places on applications for admission pursuant to the authority contained in Title 5, California Administrative Code, Section 41201. The social security number will be used as a means of identifying records pertaining to the student as well as identifying the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the University





## **EVENING OFFICE**

### **Late-Day Classes**

Courses offered in the late afternoon and evening are in every respect the equal of courses offered earlier in the day; they have identical prerequisites and requirements and they confer equal credit. Late-day classes have proved to be of convenience to regular and part-time students, teachers, business people and others in the community. The proportion of late-day classes has been increasing and stands currently at more than one-third of all classes.

### **Evening Office**

During the regular academic year, the University maintains an office to assist evening students. This office, located in the Pfau Library, telephone 887-7520, provides these students with many of the services usually offered during the day, such as help with university regulations, adding and dropping courses, graduation checks, changes in major and parking permits. This office also makes available general information about the University's academic programs and activities. Further information may be obtained from the Office of Academic Services.

### **Degree Completion Programs For Part-Time Students**

Increasing opportunities are being developed for part-time students to complete baccalaureate and master's degree programs by attending late-day classes.

Presently offered in the late afternoon and evening is a sufficient range of upper-division course work to complete a major in administration, criminal justice, economics, English, geography, health science, history, human development, humanities, human services, liberal studies, nursing, political science, psychology, social sciences, sociology, Spanish and vocational education. At the graduate level, master's degree programs are available in business administration, public administration, biology, education, criminal justice and English composition.

Students who wish to pursue a late-day degree-completion program in other fields should consult with the department of their proposed major regarding the availability of required courses and then apply for admission to the University in the usual manner. (Persons with limited study time should note that a single late-day course constitutes one-third of a full load.)





62 / Fees

Parking Fees	
Quarter Four-wheel vehicle.....	22.50
Two-wheel vehicle (includes mopeds) .....	5.60
Summer Session: Four-wheel vehicle (per week) .....	2.25
Two-wheel vehicle (per week) .....	.55
Check returned for any cause.....	10.00
Replacement of registration packet.....	2.00
Transcript of academic record	
Single transcript .....	4.00
Additional transcripts prepared at the same time, up to 10 transcripts .....	2.00
Additional transcripts prepared at the same time that exceeds the first 10 transcripts .....	1.00
Library fees .....	schedule posted at Library circulation desk
Master's degree thesis .....	contact Office of Graduate Programs

NOTE: Fees subject to change without advance notice.

State University Fee

A state university fee has been established by the trustees of The California State University to provide financing for various student services programs not covered by state funding.

Alan Pattee Scholarships

Children of deceased public law enforcement or fire suppression employees, who were California residents and who were killed in the course of law enforcement or fire suppression duties, are not charged fees or tuition of any kind at any California State University campus, according to the Alan Pattee Scholarship Act, Education Code Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. Further information is available at the Office of Admissions which determines eligibility.

Veterans' Dependents Exemptions

Certain dependents of U.S. veterans with service-connected disabilities and veterans who have been killed in service or died of a service-connected disability may be eligible for waiver of university fees. The annual income of the surviving parent cannot exceed \$5000. Further information is available from the veterans certification clerk.

Refund of Fees

Fees may be refunded only as authorized by Sections 41802, 41803 and 41913 of Title 5, California Administrative Code. Whether a fee may be refunded and the circumstances under which a refund is possible vary depending on the particular fee involved. Requirements governing refunds may include such matters as the reason (for example, death, disability, compulsory military service), the number of days of instruction which have elapsed before application for refund is made (for example, requests for refund of state university fee, Associated Student Body fees, Student Union fees, instructionally related activities fee and facilities fee must be made no later than 14 calendar days following the start of regular classes and requests for refund of extension course tuition fees must be made prior to the fourth meeting of the class), and the degree to which the campus has provided the services for which the fee is charged. Details about refunds and the

appropriate procedure to be followed may be obtained from the Accounting Office. The last day for refund of fees for each term appears in the class schedules.

Upon a student's withdrawal from all classes, the state university fee, the Associated Students fee, the Student Union fee, the Instructionally Related Activities fee, and the facilities fee may be refunded if written application for refund, on forms provided by the registrar, is submitted to the Bursar not later than 14 calendar days (includes Saturdays, Sundays and holidays) following the first day of classes. However, a fee shall be retained to cover the cost of processing.

Students who make changes to their program resulting in a lower fee category may receive a refund consisting of the difference in the higher and lower state university fee, except that a fee will be retained to cover the cost of processing. For further details and exact fees, refer to the quarterly class schedules.

Nonresident tuition is refunded on a prorated basis during the first four weeks of instruction according to the following schedule: 100% before or during the first week of instruction, 75% during the second week, 50% during the third week, 25% during the fourth week. No refund is available after the fourth week.

Parking fees are refunded, upon surrender of the decal, according to the following prorated schedule. Regular quarter: 66% during the first 25 calendar days of the quarter, 33% during the 26th through 50th calendar days, no refund after the 50th day. Summer session (based on calendar days commencing on the day instruction begins): 66% refunded during the first 10 days, 33% during the 11th through 20th days, no refunds after the 20th day.

### **Estimated Costs per Quarter**

It is estimated that full-time students each quarter pay about \$125 for books and \$233 to \$242 for fees plus parking costs.

### **Debts Owed to the University**

Should a student or former student fail to pay a debt owed to the institution, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, California Administrative Code, Sections 42380 and 42381). For example, the institution may withhold permission to receive official transcripts of grades from any person owing a debt. If a student believes that he or she does not owe all or part of an unpaid obligation, the student should contact the campus business office. The business office, or another office on campus to which the student may be referred by the business office, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.



## ACADEMIC REGULATIONS

All students who register at California State University, San Bernardino in resident study for either the fall, winter or spring quarter must first be admitted to the University by the Office of Admissions.

No student may attend classes until his or her registration has been completed.

Registration is complete only when official programs are properly filed and all fees are paid. Students are required to make all payments on the regularly announced days.

Students are granted credit only for those courses in which they are formally registered and are responsible for completing all courses under their name on the CAR schedule confirmation list, except those courses they officially change by filing a change of program with the Office of Admissions and Records.

### Class Level of Students

Students are classified at the end of each quarter according to total earned credits accepted for transfer and/or completed at the California State University, San Bernardino as follows:

<i>Status</i>	<i>Units earned</i>
Lower division	
Freshman .....	0–44.9 quarter units
Sophomore .....	45–89.9 quarter units
Upper division	
Junior .....	90–134.9 quarter units
Senior .....	135 quarter units or more
Postbaccalaureate .....	Holding baccalaureate degree from an accredited college and not pursuing a graduate degree program
Unclassified .....	No degree, credential or certificate objective
Classified .....	Pursuing a credential or certificate
Graduate .....	Postbaccalaureate student pursuing a graduate degree
Conditionally classified .....	Completing prerequisite requirements
Classified .....	Admitted to the degree program



**Advising**

Students have the opportunity to meet with a faculty advisor (counselor) each term for help in planning their academic programs and schedules of classes. Usually, the faculty advisor comes from the same area as the student's major field. To make contact with an advisor, call the appropriate department office as listed in the Class Schedule which also gives information about the University's certificate and credential programs. Students who have not yet declared a major should contact the Advising Center for an appointment. Faculty advisors are available during special advising periods, which are held before registration each quarter. (See Class Schedule for dates.) Advisors are also willing to see students during their office hours throughout the term.

The Counseling and Testing Center offers specialized counseling in educational and personal matters. In addition, the Career Planning and Placement Center provides assistance to both students and alumni regarding the job search, information on the job market and career opportunities.

**Academic Course Load: Undergraduates**

The normal full-time course load is 15 quarter units, but a student may carry up to 19.5 quarter units with the advisor's consent.

A student may carry 20 or more units only upon petition to the school dean. Course overload cards are available in the school dean's office. Normally, petitions are approved only if both the grade-point average for the previous term and the overall grade-point average are 3.0 or better.

**Academic Course Load: Postbaccalaureate and Graduate Students**

The normal academic load for a postbaccalaureate or graduate student is 10 quarter units. To enroll in more than 15 units in any one quarter, a student must have written approval of the advisor and the associate dean for graduate programs. Students who must work to support themselves, who have time-consuming family responsibilities, who commute long distances, or who are in other difficult circumstances should, in conjunction with their advisors, weigh these factors and alter their course loads accordingly.

**Accelerated Progress**

Some students choose to accelerate progress toward completion of their objectives through a program of independent study, summer course enrollment and registration for additional course credits.

In addition, credit-by-examination procedures permit students to demonstrate their mastery of the content of local courses, as described below, or courses offered through the Advanced Placement Program or the subjects tested by the College Level Examination Program, as described on Page 54.

In some instances, registration in summer sessions permits the completion of one full quarter, 15 units, of degree-applicable work.

Students wishing to enroll for additional course work during the academic year should follow the procedures described in the sections on academic course loads, above.

### **Credit for Comprehensive Examination Courses**

Any student admitted to this campus may earn degree credit for no more than three comprehensive examination courses regardless of the total units earned in those courses. This maximum is to be counted separately from all other out-of-class curriculum options (for example, credit by examination). The student's major discipline may further restrict the number of comprehensive examination credits acceptable toward the major.

In cases where the subject matter of a comprehensive examination course duplicates that of a course taken previously, the University's Repeat of Course policy will apply (see Page 75). In no instance will duplicate credit be awarded for a repetition of subject matter.

### **Credit by Examination**

A student may petition to receive course credit by examination. In this manner a student who already possesses, or through independent study is able to acquire, the skills or knowledge of the ideas and concepts of a course can accelerate progress through the University. Students must register for the examination in the office of the school or department concerned before the first day of classes of the term in which the course is offered. Some presumptive evidence is required to indicate that the student has a reasonable chance of passing the examination. The student must complete the examination within the first two weeks of the term. Courses may be designated by a school, department or appropriate unit as inappropriate to be challenged by examination on the basis that course content is not suited to such examination.

No fee is charged for these examinations. A student who passes an examination is given the grade of CR (see Page 72) for definition of this grade) for that course, provided that this does not duplicate credit counted for his admission to the University. No official record is made of failures in these examinations.

Examinations for course credit are given under the following restrictions:

1. They may be taken only by students currently enrolled at the University in courses other than the one(s) to be challenged.
2. They may not be taken by students who have received credit for work in the subject in advance of the course in which the examination is requested, except where permission is granted by the school or department concerned.

## **68 / Academic Regulations**

3. They may not be taken to raise grades or remove failures in courses.
4. Once students have successfully challenged a course, they may not subsequently enroll in the course for credit. Units attempted, units earned and grade points for any such enrollment will be disallowed.
5. A maximum of 40 units of credit may be received through such examinations.
6. A student may repeat an examination for credit only upon approval of the Associate Vice President, Academic Programs.
7. Credit by examination may not be used to fulfill the minimum residence requirement.
8. The course must be offered during the term in which the examination is taken. However, students may not enroll in a course they plan to challenge. If the challenge is unsuccessful, the student may add the course subject to the regulations for adding a class printed in the quarterly class schedule.

Exact times and places of examinations are announced by the departments concerned. Students who wish to take an examination should consult the departmental office well in advance.

Credit by examination cannot be earned during the summer sessions.

For regulations concerning credit by examination in graduate programs refer to Page 98.

### **Concurrent Enrollment**

Procedures have been established whereby a student in good academic standing at the California State University, San Bernardino who has completed at least 18 quarter units of work at the University and who is eligible to register as a continuing student for the immediately subsequent term may enroll concurrently at another campus of The California State University system. The procedure enables a student to attend another campus within the system, on a term by term basis, without submitting the formal application for admission form and paying the \$35 application fee. For information regarding the procedure, contact the Registrar.

To guarantee acceptance, for degree credit, of work taken at institutions other than those within The California State University system, a student must complete a concurrent enrollment/summer session contract. These contracts are prepared by the evaluators in the Office of Admissions.

### **ROTC Programs**

The University has a military science program (Army ROTC), described under Military Science in the academic section of this Bulletin. Also, a cooperative arrangement permits students interested in Air Force ROTC to complete their academic requirements on this campus, while enrolling in ROTC courses at the University of California at Los Angeles. For additional details, contact UCLA's Department of Aerospace Studies at (213) 825-1742.

### **Class Schedule**

An official class schedule, prepared each quarter by the University, includes the registration schedule, procedure for registration, fees, classes offered by hours and instructors, and other pertinent registration information. The schedule

is available just prior to advisement and early registration each quarter and may be purchased at the University Bookstore. Students are responsible for being aware of information contained in the class schedule.

### **Late Registration**

The last day for late registration each term will be announced in the class schedule. The University calendar, Pages 4–6, lists registration dates. Late registrants may find themselves handicapped in arranging their programs due to closed classes. A \$25 late registration fee is required.

### **Adding Classes**

Students who participate in Computer-Assisted Registration may add classes during priority drop/add. (See the class schedule.) Beginning with the first day of the late registration period, all students may add classes, subject to appropriate approvals, continuing up to and including the last day to add classes. (See the class schedule.)

### **Auditing Courses**

Enrollment in any course as an auditor shall be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so and only upon consent of the instructor. Auditors are subject to the same fee structure as credit students, and regular class attendance is expected.

Credit for courses audited will not subsequently be granted on the basis of the audit. Transcripts are not issued for audited courses.

Once enrolled as an auditor, a student may not change to credit status unless such a change is requested within the first week of class and is approved by the instructor. Students registered for credit may change their status from that of an enrolled student to that of an auditor with the approval of the instructor concerned and within the first three weeks of class.

Forms for such changes may be secured from the Office of Records. Registration is by appointment with the registrar.

### **Class Attendance**

Regular attendance is expected of all students enrolled at the University. The instructor of each class sets specific standards expected of students.

A student absent from classes is responsible for arranging to make up missed class work and assignments. In cases of prolonged absence, the student should investigate the feasibility of withdrawal from the University. (See below.)

### **Withdrawal from a Class or the University (See class schedule for details)**

Students are assigned grades for every course in which they have enrolled.

If a student withdraws officially from the University or from a class by the end of the third week of class (see University calendar for exact date), the course is not recorded on the permanent record.

## **70 / Academic Regulations**

Withdrawal after the third week, and prior to the last three weeks of instruction, is permissible only for serious and compelling reasons. Permission to withdraw during this time period must be obtained from the instructor and the school dean.

Withdrawal will not be permitted during the final three weeks of instruction except in cases such as accident or serious illness where the cause of withdrawal is due to circumstances clearly beyond the student's control and the assignment of an incomplete grade is not practicable. Withdrawal during this period requires the approval of the instructor, the school dean and the associate dean, academic services.

A grade of W will be assigned for approved withdrawals occurring after the third week of instruction.

A student who withdraws from all classes in which he or she is enrolled must officially withdraw from the University.

### **Leave of Absence**

A planned leave of absence, if granted, entitles an undergraduate student returning from an absence of from two quarters to two years to continue under the requirements of the catalog which applied prior to the absence.

Undergraduate students may petition for planned leaves for reasons such as: (a) professional or academic opportunities, such as travel or study abroad, employment related to educational goals and major fields of study, or participation in field study or research projects; (b) medical reasons, including pregnancy, major surgery, or other health-related problems; (c) financial reasons, such as the necessity to work for a specified period in order to resume study with adequate resources; (d) military service.

Evaluation of petitions for planned leaves takes into account the student's stated plans and the extent to which a leave would contribute to educational objectives. Students are expected to plan their time of return and their activities during the leave. They must also state why it is critical to remain in continuous residence. In the case of medical or financial leaves, they must state how they plan to remain current with or advance in their academic fields.

Students obtaining a leave of absence after the last day to withdraw without penalty will receive grades of W in all courses.

The granting of a leave of absence does not constitute a waiver of the requirement for applying for readmission, but the application fee will be waived provided that the conditions of the leave have been met.

For information on the current policy, including restrictions, contact the Office of the Associate Dean, Academic Services.

### **Final Examinations**

Written examinations of two hours' duration are held at the close of each term. In courses extending over more than one term, the examination in the concluding term may also cover work done in the preceding term or terms. Examinations may not be taken before or after the scheduled period nor may the time of an examination be changed without authorization by the associate vice president, academic programs. Permission to take a final examination with a different section in the same course may be granted by the associate vice president, academic programs with the consent of the instructors concerned. Failure to take or to pass

any final or other course examinations will result in such deficiencies as instructors may assign.

### Final Grade Report

Final grade reports will be available to students within a few weeks after the last day of each quarter.

### Grievance Procedures

Information concerning academic matters may be obtained from the Office of the Associate Dean, Academic Services. Generally, a grade grievance must be initiated by the student within no more than 40 calendar days after the grade is recorded. The complete policy statement is available from the Office of the Associate Dean, Academic Services.

Information concerning nonacademic matters may be obtained from the Dean of Students Office. Advisement and nonacademic grievance policies are available there.

### Grades

The grade symbols used at the University are as follows:

Grade symbol	Performance level	Grade points per quarter hour
A	Excellent	4.0
A —		3.7
B +		3.3
B	Good	3.0
B —		2.7
C +		2.3
C	Satisfactory	2.0
C —		1.7
D +		1.3
D	Passing	1.0
D —		.7
F	Failing	.0
CR	Credit	
NC	No Credit	

All courses, except those specifically designated otherwise, will be graded on the A through F basis.

Grade-point averages are computed by dividing the number of grade points earned by the number of units attempted. Only units and grade points earned by a student while enrolled at this University are used to compute the resident grade-point average.

## 72 / Academic Regulations

The following administrative grades carry no grade points and are, therefore, not used to determine a student's grade-point average. However, it should be pointed out that the Incomplete will be counted as an F if not removed within one calendar year from the date it was assigned.

I	Incomplete Authorized
RD	Report Delayed
SP	Satisfactory Progress
W	Withdrawal

The administrative grade of U carries no grade points but is included in determining units attempted. Thus, it is equivalent to an F.

### Expanded Grade Symbol Definitions

*A (Excellent):* Meeting course requirements with a superior level of performance. A is recognized to be an honors evaluation.

*B (Good):* Meeting course requirements with a high level of performance.

*C (Satisfactory):* Meeting course requirements with an acceptable performance.

*D (Passing):* Meeting course requirements with minimally adequate performance.

*F (Failing):* Inadequate performance or not meeting course requirements.

*CR (Credit):* A satisfactory or better level of performance, equivalent to the grade of C (2.0) or better, has been demonstrated in meeting course objective. For graduate courses, equivalent to grade of B (3.0) or better.

*NC (No Credit):* Performance at an unsatisfactory or failing level, equivalent to a grade of C— (1.7) or less. For graduate courses, equivalent to a grade of less than B (3.0). Does not award credit for the course.

*I (Incomplete):* An Incomplete signifies that a portion of required course work has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. A final grade is assigned when the work agreed upon has been completed and evaluated.

An Incomplete must be made up within one calendar year immediately following the end of the term in which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an Incomplete being counted as equivalent to an F (or an NC) for grade-point average computation.

*RD (Report Delayed):* The RD symbol is used in those cases where a delay in the reporting of a grade is due to circumstances beyond the control of the student. The symbol is assigned by the Registrar and is replaced by a more appropriate grading symbol as soon as possible. An RD is not included in the calculation of grade-point averages.

*SP (Satisfactory Progress):* The SP symbol is used in connection with courses which extend beyond one academic term. The symbol indicates that work in progress has been evaluated as satisfactory to date but that the assignment of a precise grade must await the completion of additional course work. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. All undergraduate work is to be completed

within the time specified but not to exceed one calendar year of the term of first enrollment, and a final grade will be assigned to all segments of the course on the basis of overall quality. The time limitation for graduate degree theses may be up to two years but may not exceed the overall time limit for completion of all master's degree requirements. Extension of any time period requires prior authorization by the associate vice president, academic programs.

*U (Unauthorized Incomplete)*: The symbol U indicates that an enrolled student did not withdraw from the course but failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade-point average, this symbol is equivalent to an F.

*W (Withdrawal)*: This symbol indicates that the student dropped the course. It carries no connotation of quality of performance and is not used in calculating grade-point average.

### Policy on Nontraditional Grading

All courses are graded on an A through F basis, except those specifically designated as follows:

*Credit/No Credit*. Credit is awarded for grades equivalent to C or better. No credit is awarded for grades equivalent to C— or less.

*ABC/No Credit*. Grades awarded are A, A—, B+, B, B—, C+ or C. No credit is awarded for grades equivalent to C— or less.

Certain activity courses, independent study projects, and other courses serving special needs are not readily evaluated in the traditional A through F manner. The nontraditional Credit/No Credit grading allows faculty to award credit for satisfactory performance in an activity, rather than assign a letter grade when such performance cannot be evaluated traditionally.

Courses graded Credit/No Credit, whether taken at this or at another institution, may not be used to satisfy requirements for the major, except specific courses designated by the department to be graded Credit/No Credit.

Students who, because of a change of major or because of transfer from another institution or for any other reason, present courses in the major field which have been graded on a Credit/No Credit basis may, at the discretion of the department or other appropriate academic unit, be required to pass competency examinations at an acceptable level or to take prescribed alternate courses before being allowed to continue in the major.

A student may offer no more than 36 quarter units of work graded Credit/No Credit in satisfaction of the total units required in the student's baccalaureate degree program at the California State University, San Bernardino. This number includes any combination of units graded Credit/No Credit earned at the California State University, San Bernardino and any other institution or institutions, excepting that all units accepted for transfer credit from another institution at the time of the student's admission to the University may be used toward the satisfaction of the total units required for the baccalaureate degree. Acceptance for transfer credit by the California State University, San Bernardino of 36 quarter units or more graded Credit/No Credit at another institution or institutions precludes the student from offering courses graded Credit/No Credit at the California State



## 74 / Academic Regulations

University, San Bernardino, for satisfaction of units required for the baccalaureate degree.

Course grades of credit received under a credit-by-examination program are exempt from the 36-unit limitation.

### Scholarship Standards for Undergraduates

For purposes of determining a student's eligibility to remain at the University, quality of performance toward the student's objective shall be considered. Such eligibility shall be determined by use of grade points and grade-point average.

- (a) An undergraduate student shall be subject to probation if, in any academic term, the student fails to maintain either a cumulative grade-point average or a grade-point average at the California State University, San Bernardino of at least 2.0 (grade of C).
- (b) An undergraduate student shall be subject to disqualification if while on probation the student's grade-point balance either cumulative or at the California State University, San Bernardino displays a deficiency in excess of the number permitted for the student's class level pursuant to deficiency levels established by the chancellor.

Disqualification levels are as follows:

1. Lower-division student (fewer than 90 quarter units of college credit), 22.5 grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino;
  2. Junior (90 to 134.9 quarter units of college work), 13.5 grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino;
  3. Senior (135 or more quarter units of college work), 9 or more grade points below a 2.0 average in all units attempted or in all units attempted at California State University, San Bernardino.
- (c) An undergraduate student who is not on probation may be disqualified if at any time the student's cumulative grade-point average falls below 1.0 (grade of D) and, in the opinion of the appropriate campus authority, it is unlikely in light of the student's overall educational record that the resultant grade-point deficiency will be removed in subsequent terms.

A student disqualified for scholarship deficiency may not enroll in any regular term of the University without having successfully petitioned for readmission through the Office of the Associate Dean, Academic Services, and may be denied admission to other educational programs operated or sponsored by the University.

### Scholarship Standards for Postbaccalaureate and Graduate Students

Students in classified or conditionally classified graduate standing must maintain a 3.0 grade-point average in all work attempted.

Students in classified postbaccalaureate standing in credential programs must maintain grade-point averages appropriate to their program. GPA requirements for the various credential programs are:

Basic teaching credentials: single or multiple subject require a 2.7 GPA in all work attempted; the designated subjects credential requires a 2.5 GPA in all work.

Specialist or services credentials require a 3.0 grade-point average in all work attempted with the exception of the school psychologist services credential which requires a 3.5 GPA in all work.

Failure to maintain the appropriate grade-point average will result in the student being placed on probation. Students on probation must rectify their grade-point deficiencies by the end of the quarter of notification of probationary status, or they automatically will be disqualified and placed in unclassified postbaccalaureate status. To apply for reinstatement to a graduate degree or credential program after disqualification, the student must petition the appropriate program committee.

A student who has been disqualified from a master's degree program may be admitted to another program only on the recommendation of the department to which the student has applied and with the approval of the associate dean, academic services.

Students in unclassified postbaccalaureate standing and students seeking a second bachelor's degree must maintain a 2.5 GPA in all work attempted. Students in this category who are dismissed from the University for failure to maintain these standards must petition the associate dean, academic services, for readmission to the University.

### **Administrative Academic Disqualification**

An undergraduate or graduate student may also be placed on probation or may be disqualified by appropriate campus authorities for unsatisfactory scholastic progress regardless of cumulative grade-point average or progress points. Such actions shall be limited to those arising from repeated withdrawal, failure to progress toward an educational objective and noncompliance with an academic requirement and shall be consistent with guidelines issued by the chancellor.

### **Repeat of Courses: Undergraduates**

Students may repeat a course only once in order to have the first grade discounted and the grade from the second attempt used on their transcript. The discounting of the grade in a repeated course is by petition only. Discounting means that when computing grade-point averages required for graduation, the University will exclude units attempted, units passed (if any) and grade points (if any) for previous attempts. If a student repeats a course more than once, the subsequent grades will be averaged to determine cumulative grade-point averages. No more than five different courses may be discounted by repeating them. A course may not be repeated for the purpose of removing an incomplete. If a course with variable topics is repeated to discount a previous grade, the same topic (identified by specific course number *and* suffix) must be repeated.

Students should inquire at the Office of Records for a complete policy statement covering the repeat of courses.

## **76 / Academic Regulations**

### **Repeat of Courses: Postbaccalaureate**

Classified graduate students and postbaccalaureate students may be permitted to repeat a course under certain provisions. Requirements for seeking permission to repeat courses and utilization of credits earned are explained in detail on Page 98.

### **Academic Renewal**

Under certain circumstances a student may be granted permission to have up to two semesters or three quarters of undergraduate course work, taken at least five years earlier, disregarded from all considerations associated with requirements for the baccalaureate degree. Students who feel that they may qualify for this "academic renewal" policy should consult with the associate dean of academic services.

### **Plagiarism**

Plagiarism is the presentation as one's own the ideas and writings of another. Plagiarism is academically dishonest and subjects the offending student to penalties up to and including expulsion. Students must make appropriate acknowledgements of the original source where material written or compiled by another is used.

### **Declaring (or Changing) a Major**

Work in a major field of study is designed to afford students the opportunity to engage in intensive study of a discipline.

Students may declare a major at the time of admission.

Students entering the University as "undeclared" or those changing their majors should process a change of major form through the Office of Admissions. Students who declare a major or change from one major to another following admission will be held to either

- (a) the current Bulletin for requirements of the *major* and to the Bulletin under which they entered for other college requirements (for example, general education), or
- (b) the Bulletin in effect at the time of graduation for *all* requirements.

### **Election of Graduation Requirements**

A student remaining in continuous attendance in regular sessions and continuing in the same curriculum in this University, in any of the California community colleges, or in any combination of California community colleges and campuses of The California State University, may, for purposes of meeting graduation requirements, elect to meet the graduation requirements in effect at this University either at the time of entering the curriculum or at the time of graduation from this University, except that substitutions for discontinued courses may be authorized or required by the proper college authorities. (See Leave of Absence, Page 70.)

### **Postbaccalaureate Credit for Senior Students**

A student, for the term (including summer) in which he or she receives the baccalaureate degree, will be granted postbaccalaureate credit for any course

taken at California State University, San Bernardino numbered 300 or above which is not needed to meet undergraduate degree requirements. Students not wishing to receive postbaccalaureate credit for such courses must petition to have the work included in their undergraduate program. Postbaccalaureate credit will not be granted for courses numbered below 300 or for courses taken in advance of the last undergraduate term.

### Summer Enrollment at Other Institutions

In instances where there might be a question about the acceptability of course work taken at another institution in the summer, students are advised to consult the department offering the equivalent course at this University.

### Information for Issuance of Transcripts

Single transcripts are issued at a cost of \$4 per copy, payable in advance. (Refer to fee schedule in the class schedule or this Bulletin for fees for multiple copies.)

All transcripts will be complete as of the date of issuance showing all work attempted at the California State University, San Bernardino.

Copies are normally mailed one week after receipt of request. However, if the request specifies inclusion of grades just earned or verification of a degree just awarded, two to three weeks must be allowed beyond the end of the term for a transcript to be issued.

### Access to Records

All student records, including recommendations, are kept by the University in accordance with the Family Educational Rights and Privacy Act of 1974, which allows students access to their records. Inquiries and concerns about this federal regulation should be directed to the Office of the Dean of Students for further information.

### Veterans Information and Certification

California State University, San Bernardino, is approved for the training of veterans of the military services and their dependents under educational assistance programs established by the state and federal governments. Applications for educational benefits may be obtained directly from the veterans certification clerk in the Registrar's Office.

Student enrollment certification is based on the following unit loads for undergraduates and graduates:

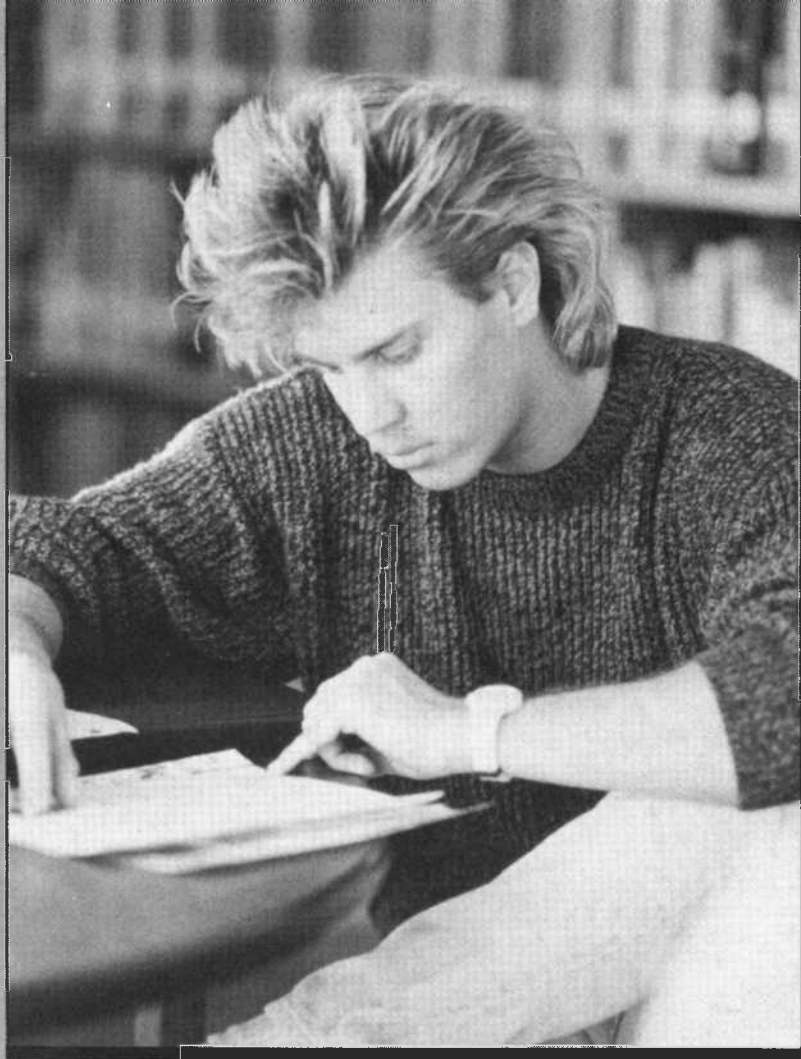
<i>Undergraduates</i>		<i>Graduates</i>	
Full Time .....	12 quarter units	Full time .....	12 weighted units
¾ time .....	9–11.5 quarter units	determined as follows:	
½ time .....	6–8.5 quarter units	500 and 600-level course weighted at 1.5 units	
		300 and 400-level course weighted at 1.0 units	
		100–200 no certification unless course is stated	
		condition for admission to a graduate program	
		¾ time .....	9.0 to 11.5 weighted
		units as determined above	
		½ time .....	6.0 to 8.5 weighted
		units as determined above	

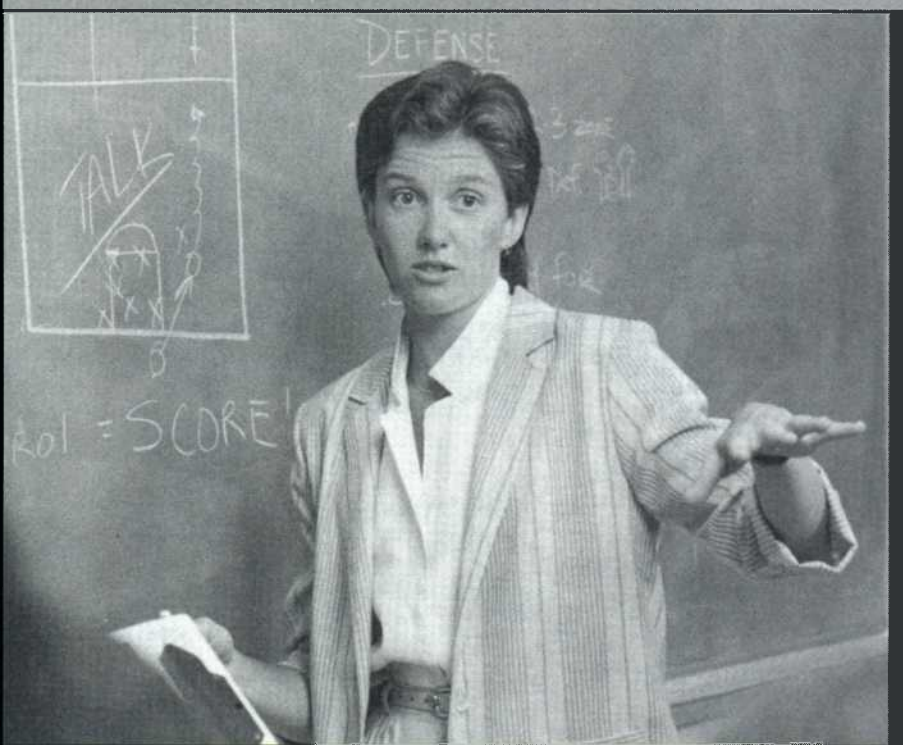
The University will certify course loads to the Veterans Administration based on the criteria above for units which are degree or objective applicable. Veterans

## **78 / Academic Regulations**

enrolled less than half time are eligible for reimbursement of tuition and fees only.

Independent study and self-paced courses will be certified for monthly educational benefits when the student is concurrently enrolled in residence and independent study courses. The independent study and self-paced courses will be reported at full value up to a maximum of five units. Students enrolled in independent study or self-paced courses exclusively are eligible for reimbursement of tuition and fees only.





## UNDERGRADUATE DEGREE REQUIREMENTS

To be eligible for the bachelor's degree, a student must:

1. Complete a minimum of 186 quarter units of college credit.
2. Complete 75 quarter units (15 full-term designated courses) in general education distributed in the manner outlined in the following section titled General Education Requirements. Satisfactory scores on the English Placement Test and the Entry-level Mathematics Test are prerequisites for enrollment in general education English (101) and Mathematics (100, 110, 120, 200) courses. (Refer to Page 84.)
3. Complete all requirements for a major, including at least 20 quarter units of upper-division course work in the major.
4. Complete at least 45 quarter units at this University.  
(Refer to University Residence Requirement for Graduation, Page 86.)
5. Complete at least 60 quarter units of upper-division work.
6. Earn a grade-point average of 2.0 (C) or better in all units used to fulfill the requirements of the major.
7. Earn a grade-point average of 2.0 (C) or better in all units attempted, and in all units attempted at the University.
8. Complete six quarter units of physical education activity courses (courses numbered 150 and below), or the equivalent. Students 25 years old or over may substitute six units of their choice.
9. Complete the upper-division writing requirement. (Refer to Page 85.)
10. Complete history, constitution and government requirement. (Refer to History, Constitution, Government Requirement, Page 85.)
11. Be recommended for graduation by the faculty of the University.

### General Education Requirements

The general education requirements at California State University, San Bernardino are designed to assure that all graduates of the University, whatever their major, have acquired certain essential skills and a broad range of knowledge appropriate to educated persons in our society.

Lower-division courses, distributed among four general categories, are intended to foster an ability to think clearly and logically, to find and critically examine information, and to communicate, at an appropriate level, orally and in writing; to acquaint students with the physical universe and its life forms and to impart an understanding of scientific methodology and of mathematical concepts and quantitative reasoning; to cultivate—through the study of philosophy, literature, languages, and the arts—intellect, imagination, sensibility and sensitivity; and to deal with human social, political and economic institutions and their historical background, with human behavior and the principles of social interaction. Upper-division courses include a further requirement in writing and cross-



## 82 / Undergraduate Degree Requirements

disciplinary courses designed to examine, from various perspectives, issues important to an understanding of ourselves, our world and our society.

The purpose of general education is less to provide students with a number of possible avenues for specialization, than it is to make sure that all students will be able to write, speak and think clearly, to understand the issues on which they will have to make decisions, and to know something about themselves and the world in which they live.

The general education program requires a minimum of 75 quarter units distributed as follows:

*No substitutions in the general education program are possible without **prior** approval of a petition submitted to the Office of Academic Services.*

- A. Communication and critical thinking: three courses
  - a. English 101
  - b. Either Philosophy 105 or Communication 120 (Interdisciplinary Studies 101A and B may be taken as an alternative to English 101 and Philosophy 105.)
  - c. Upper-division writing requirement: one course from among Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495. (Prerequisites for 495 courses: English 101 and a minimum of 90 quarter units of college credit.)  
Students exempted from this requirement by passing a designated special examination in writing must take instead a third course from Category E or Interdisciplinary Studies 596.
- B. Humanities: three courses
  - One course in the arts:
    - a. Art (Art 200)
    - b. Music (Music 180)
    - c. Theatre Arts (Theatre Arts 250)
  - Two courses in letters:
    - a. Foreign studies (French, German or Spanish 101-102-103\*, French 104, 200 or 210; Spanish 202, 204 or 450; Foreign Languages 450)
    - b. Literature (English 110, 111, 170)
    - c. Philosophy (Philosophy 190)
- C. Natural sciences: three courses
  - One course in mathematics:  
Mathematics 100, 110, 120, 200\*\*
  - One course from the life sciences:
    - a. Biology (Biology 100, 202)
    - b. Health science (Health Science 120)
  - One course from the physical sciences:
    - a. Astronomy (Natural Sciences 100)
    - b. Chemistry (Chemistry 100, 205, 215)
    - c. Earth science (Earth Science 101)

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\* Credit toward the general education requirement will not be awarded for the 101 course unless followed by 102.

\*\* To enroll in these mathematics courses, students must have passed the entry-level mathematics test (ELM). (See Page 84.)

- d. Physical geography (Geography 103)
- e. Physics (Physics 100; 121 and 225; 221 and 225)
- D. Social sciences: three courses
 

One course chosen from each of the following groups.

  - a. World cultures (Social Sciences 140, 142, 144, 165)
  - b. American society (Political Science 203; Social Sciences 146, 155, 160) Political Science 203 also meets the requirement in the U.S. Constitution, U.S. history, and state and local government. Social Sciences 146 also meets the requirement in the U.S. Constitution and U.S. history.
  - c. Behavioral and Social Sciences (Anthropology 100, 102; Economics 104; Geography 100; Political Science 200; Psychology 100; Sociology 100)
- E. Upper-division general education requirement: two courses
 

To be chosen from among the designated upper-division general education lecture courses in two of three areas: Humanities (319, 325 \*, 330, 344, 350, 353, 360); Natural Sciences (300, 305, 310, 312, 314, 320, 325 \*, 351); Social Sciences (300, 304, 315, 321, 325 \*, 333, 343, 345). An alternate way to satisfy this requirement is to complete one of the Interdisciplinary Studies comprehensive examination sequences: IS 386A and B, IS 387A and B, or IS 388.
- F. General education elective: one course
 

To be chosen from the designated courses in categories A through E above or Finance 201.
- G. Lifelong understanding and development: one course
 

In completing general education requirements A through F, students must include at least one of the following courses designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities: Anthropology 100, 102, Biology 100, 202, Geography 100, Health Science 120, Humanities 319, Natural Sciences 310, 312, 351, Psychology 100, Social Sciences 160, 315, 333, Sociology 100.

Students are strongly urged to complete lower-division proficiency requirements in mathematics and communication and critical thinking (English 101; Mathematics 100 or equivalent; Philosophy 105 or Communication 120) before enrolling in upper-division courses (numbered 300 or above) and before achieving upper-division standing (completion of 90 units).

## Graduation Requirement Check

Senior students must request a graduation requirement check at the Office of Admissions and Records prior to completing their academic work at the University. Seniors should not request the check until they have accumulated 150 quarter units, which may include work in progress. Students must file by the deadlines established for each quarter and published in the academic calendar in the Bulletin and in the class schedule.

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\* Note: Only one 325 course may be taken to satisfy General Education requirements.

## 84 / Undergraduate Degree Requirements

Students who do not complete the requirements in the term for which the first requirement check was filed must file a second graduation check on a second graduation check form, indicating the quarter in which graduation is expected.

### Systemwide Tests Required of Most New Students

The CSU requires new students to be tested in English and mathematics after they are admitted. These are not admission tests, but a way to determine if they are prepared for college work and, if not, to counsel them on how to strengthen their preparation. Students might be exempted from one or both of the tests if they have scored well on other specified tests or completed appropriate courses.

*English Placement Test (EPT)*—The CSU English Placement Test must be completed by all new undergraduates \* with the exception of those who present proof of one of the following:

- a score of 3, 4, or 5 on either the language and composition or the composition and literature examination of the College Board Advanced Placement Program;
- a satisfactory score on the CSU English equivalency examination;
- a score of 510 or above on the verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal);
- a score of 23 or above on the ACT English usage test;
- a score of 600 or above on the College Board Achievement Test in English composition with essay;
- completion of an acceptable college course in English composition of four quarter or three semester units with a grade of C or better.

The score obtained on the EPT will determine the appropriate level English composition course for each student. Prebaccalaureate course work may be required in preparation for the freshman composition course.

*Entry-Level Mathematics (ELM) Test*—All new undergraduate students must take the test and pass it before enrolling in a course that satisfies the college-level mathematics requirement of the general education-breadth program. Exemptions from the test are given only to those students who can present proof of one of the following:

- a score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC);
- a score of 530 or above on the mathematics section of the Scholastic Aptitude Test (SAT-Math);
- a score of 23 or above on the ACT mathematics test;
- a score of 520 or above on the College Board math achievement test, Level 1;
- a score of 540 or above on the College Board math achievement test, Level 2;
- completion of a college course that satisfies the General Education-Breadth Requirement in Quantitative Reasoning, provided it is at the level of intermediate algebra or above with a grade of C or better.\*\*

Failure to take either of these tests, as required, within the first two quarters of attendance may lead to administrative probation, which (according to Section

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\* Undergraduates admitted with 56 or more transferable semester units and who are subject to a campus catalog or bulletin earlier than 1986–87 are not required to complete the EPT.

\*\* Courses taken fall 1988 or thereafter must be at a level above that of intermediate algebra in order to qualify for exemption.

41300.1 of Title 5, California Administrative Code, and CSU Executive Order 393) may lead to disqualification from future attendance.

Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Admissions and Records or the campus test office.

Assistance in understanding EPT and ELM test scores is available at the Advising Center (Pfau Library Building, Room 107, 887-7520). Students having difficulty passing the ELM will be advised to either take an appropriate prebaccalaureate mathematics course or to get tutorial assistance at the Learning Center depending on the ELM score obtained. All students must pass the ELM *before* enrolling in a general education mathematics course.

### Upper-Division Writing Requirement

All students subject to degree requirements of the 1980–81 or subsequent Bulletins must complete an upper-division writing competency requirement as a condition of graduation through either of two means:

1. Completion with a grade of C or better of one of the following courses: Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495 or Social Sciences 495.\*

or

2. Satisfactory completion of a designated examination.

(Note: Students who choose this option must substitute a third course from Category E of the general education requirements or Interdisciplinary Studies 596 for the required “495” course in Category A, Page 82.)

Students normally shall complete the upper-division writing requirement by the end of the junior year.

Further information about the examination (for example, how much it costs, when it is offered, what it covers) is available from the Counseling and Testing Office, Physical Sciences Building, Room 227 (887-7437). Contact the Office of the Dean of Undergraduate Studies, Administration Building, Room 184, (887-7891) for questions about the upper-division writing requirement itself.

### History, Constitution, Government Requirement

Each student must demonstrate competence in understanding the Constitution of the United States; American history, institutions and ideals; and the principles of state and local government as established in California.

The requirement in the U.S. Constitution may be met by completing one of the following: Social Sciences 146, History 200 or 540, Political Science 203, 410 or 411.

The requirement in U.S. history may be met by completing one of the following: History 200, 201, 540, Political Science 203, 314, Social Sciences 146.

The requirement in state and local government as established in California may be met by completing one of the following: History 370B or Political Science 203 or 330.

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\* Prerequisites for 495 courses: English 101 and a minimum of 90 quarter (60 semester) units of college credits.

## 86 / Undergraduate Degree Requirements

A student can meet the entire U.S. Constitution, U.S. history, and state and local government requirement, while fulfilling general education requirements, by taking Political Science 203. The opportunity to meet the requirements by passing an optional examination, which may be repeated once (not in the same quarter), is given to students. Information may be obtained from either the Office of Admissions or the School of Social and Behavioral Sciences office. The examinations are administered through the Counseling and Testing Center.

### Second Bachelor's Degree Requirements

A student who holds a bachelor's degree from the California State University, San Bernardino or another accredited institution and who applies for a second degree must have satisfactorily completed each of the following in order to receive a second bachelor's degree:

1. General education requirements as stated in the appropriate catalog;
2. Upper-division writing requirement;
3. Requirements of the major involved;
4. In addition to whatever work was presented for the first bachelor's degree, a minimum of 45 quarter units of residence work of which
  - (a) 18 units must be in the second major,
  - (b) 15 units must be in general education,
  - (c) 36 units must be at the upper-division level;
5. Maintain a 2.5 GPA in all work attempted; and
6. Approval of the faculty of the University.

It is not necessary to complete a second bachelor's degree in order to graduate with a dual major; however, only a single diploma is issued in the case of a dual major. Contact the Office of Admissions.

### University Residence Requirement for Graduation

A minimum of 45 quarter units must be completed at this University. At least 36 of these units must be upper-division, 18 in the major and 15 in General Education.

Extension credit, credit by examination or credit by evaluation may not be used to fulfill the minimum residence requirement.

### University Honors

*University Honors at Commencement.* To be considered for University Honors at commencement, a student must have completed a minimum of 45 units of work at the California State University, San Bernardino in courses for which letter grades (A, B, C and D) were received.

Highest Honors: an overall undergraduate GPA of 3.9 or above and a GPA of 3.9 or above in all work attempted at this University.

High Honors: an overall undergraduate GPA of 3.75 or above and a GPA of 3.75 or above in all work attempted at this University.

Honors: an overall undergraduate GPA of 3.5 or above and a GPA of 3.5 or above in all work attempted at this University.

*Dean's List.* An undergraduate student completing 15 or more units for which letter grades (A, B, C and D) were received, and who earns a 3.5 or above in any regular academic term will be placed on a Dean's List.

1. Dean's Letter of Recognition. Any full-time undergraduate student, meeting the above requirements, who earns a 4.0 in any regular academic term will receive a letter of special recognition from the appropriate dean.
2. Presidential Letter of Recognition. Any full-time undergraduate student, meeting the above requirements, who earns a 4.0 in three consecutive regular academic terms will receive a letter of special recognition from the president of the University.

*Departmental Honors.* Individual departments may grant departmental honors, recognizing distinguished students majoring in that field. The requirements to be met to earn honors are specified by the respective departments. Departmental honors are currently awarded in administration, American studies, anthropology, biology, chemistry, computer science, criminal justice, economics, environmental studies, health science, history, human services, mathematics, music, nursing, philosophy, political science, psychology and sociology.

### **Preparation for Professional Schools**

The plan of undergraduate study at the California State University, San Bernardino emphasizes a liberal education in preparing for professional or vocational specialization.

Some professions, such as law, stress that candidates for admission to professional schools can best prepare themselves during college by acquiring several fundamental skills. Others, for example, medicine and dentistry, emphasize certain subject matters. A student preparing for either kind of emphasis (skills or specific subjects) has opportunities to do so by selecting, in consultation with an appropriate preprofessional advisor, the kind of curriculum that most soundly meets the standards set by the profession he or she wishes to enter.

### **Preprofessional Program: Medicine, Veterinary Medicine, Dentistry, Pharmacy**

The majority of students entering medical and dental schools in the United States do so after having acquired a B.A. or B.S. degree at an undergraduate college. Possession of an undergraduate degree is especially worthwhile, since professional schools do not offer liberal arts subjects.

Any undergraduate major is appropriate for a preprofessional student as long as certain basic subject areas are included in the program. For specific requirements of professional schools the student is urged to consult special sources such as "Medical School Admission Requirements" (a publication of the Association of American Medical Colleges) or a preprofessional advisor in the School of Natural Sciences.

In general, medical and dental schools recommend that the undergraduate degree program include: one year of general chemistry, one year of organic chemistry, one year of general biology, with additional course work in developmental biology and/or comparative anatomy and genetics, and one year of physics. Other courses, e.g., mathematics through calculus and physical chemistry, are often recommended as well.

Since preprofessional programs in dentistry and medicine place heavy emphasis on biology and chemistry, these are the two majors most often elected by preprofessional students. A preprofessional student majoring in biology should complete the biology core program, supported by courses in chemistry and

## 88 / Undergraduate Degree Requirements

physics, and should elect Mathematics 200 and Biology 342. A preprofessional student majoring in chemistry should complete the chemistry core program, supported by courses in mathematics and physics, and should elect Biology 342, 423 and 440.

The science and mathematics components of preprofessional programs in veterinary medicine are quite similar to those for medicine.

Admission to a school of pharmacy can also be gained after two years of undergraduate work. Although entrance requirements vary somewhat, they generally include full-year introductory courses in biology, chemistry, mathematics and physics. A course in organic chemistry is sometimes required as well.

### **Preprofessional Program: Law**

Applicants for admission to most law schools are expected to have a B.A. or B.S. degree and to have taken the Law School Admission Test. There is no single "prelaw" major required since the successful study of law is more often related to the ability to grasp and solve difficult intellectual problems and to employ disciplined work habits, than it is to any narrow, specialized field of study. However, students headed for law school are well advised to take a small number of selected liberal arts courses in subjects relevant to the law. Accordingly, the college offers a prelaw minor consisting of such courses. For further information concerning the prelaw minor, see Page 375.

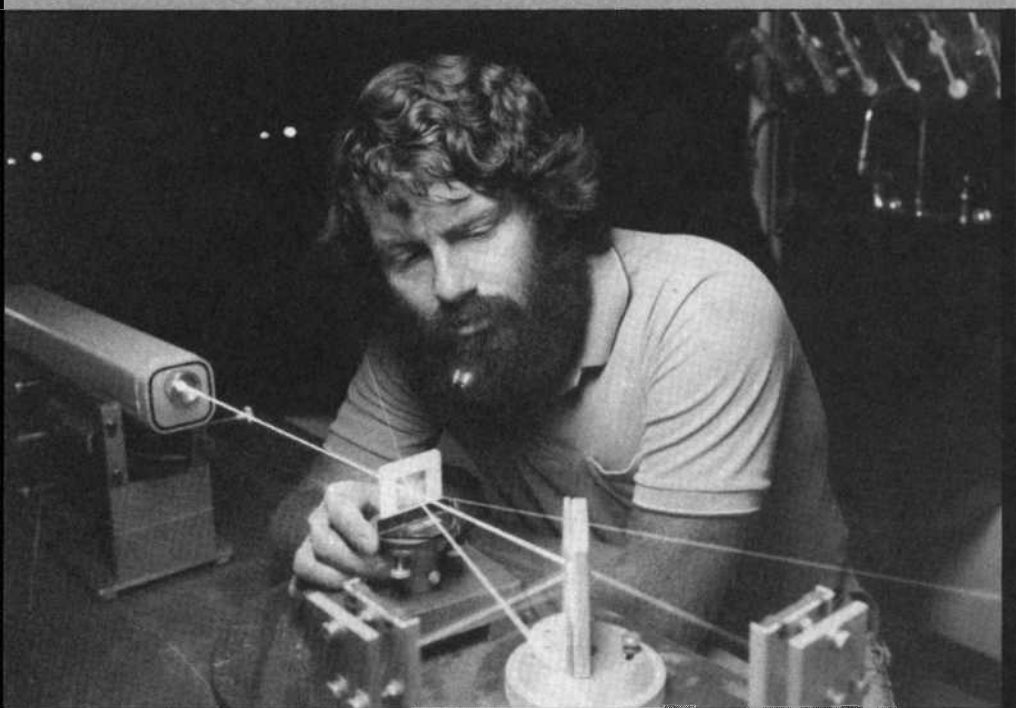
Several broad objectives of prelegal education are set forth by the Association of American Law Schools. These include the oral and written command of language; an understanding and appreciation of social, political and economic values, institutions, problems and frames of reference; and an ability for creative, innovative, critical and analytical thinking.

For these reasons, every prelaw student should carefully choose, with the aid of appropriate advisors, courses which sharpen the skills and sensitivities previously listed. Since no one major is mandatory, the student should select one which emphasizes the areas mentioned above (administration, economics, English, history, philosophy, political science and sociology, to name a few). For additional information, the student should consult with the prelaw advisor and should be familiar with the Prelaw Handbook.

For additional information, a student should see the bulletins or catalogs of various law schools or the official Prelaw Handbook, current edition, prepared by the Law School Admission Test Council and the Association of American Law Schools. This handbook may be obtained at most college bookstores or ordered from Educational Testing Services, Princeton, N.J. 08540.







## GRADUATE PROGRAMS

The University currently offers graduate programs culminating in master's degrees in the following:

- Administration, M.B.A., M.P.A.
- Biology, M.S.
- Criminal Justice, M.A.
- Education, M.A.
- English Composition, M.A.
- National Security Studies, M.A.
- Psychology, M.A., M.S.
- Rehabilitation Counseling, M.A.
- Special Major, M.A.

Graduate programs at the University are designed to serve a variety of needs. Some students pursue an advanced degree or a credential program in a professional area to enhance their career mobility; others, to expand their knowledge and understanding and to pursue research in a chosen discipline. The University provides for the part-time student, as well as the full-time student, by offering appropriate course work and research opportunities during the day, late afternoon and evening throughout the calendar year.

The School of Business and Public Administration offers a Master of Business Administration (M.B.A.) and a Master of Public Administration (M.P.A.). Both degrees are broad programs designed to provide flexibility for the student to prepare for a career in administration in the private or public sector.

The M.S. in Biology provides further study in various biological concentrations. The unique environmental setting of the campus allows for special emphasis on desert and mountain ecological studies.

The M.A. in Criminal Justice is designed to serve the growing number of individuals in the criminal justice system who desire postbaccalaureate education, as well as those in more traditional public and private employment who may wish to acquire further education in criminal justice.

The M.A. in Education offers options in bilingual/cross-cultural education, counselor education \*, elementary and secondary education, English and history (for secondary teachers), reading, school administration \*, special education and vocational education. The School of Education also offers credential programs designed to prepare students to teach in a variety of settings. In addition to the multiple, single and designated subjects credentials, specialist and services credential programs also are available.

The Department of English offers an M.A. in English Composition. The program is designed for individuals interested in pursuing studies in the teaching of

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\* Also available at the Coachella Valley Center.

## 92 / Graduate Programs

composition and is also of benefit to those who need expertise as writers of grants, interpreters of public policy, editors and the like.

The M.A. in National Security Studies is a professionally oriented interdisciplinary program designed for those who desire to understand the principles of strategic planning, arms control and defense policy analysis in relation to the contemporary international environment. The program is offered both on campus and at George Air Force Base.

The Department of Psychology offers an M.S. with an area of concentration in counseling, in addition to an M.A. degree with three areas of specialization: general, industrial-organizational and life-span developmental.

The M.A. in Rehabilitation Counseling is a two-year professional program preparing students to be certified rehabilitation counselors who will work with a wide variety of disabled persons in different settings preparing them for job placement.

An M.A. with a Special Major allows a student with unusual educational or vocational objectives to draw from several departments to meet a specific need. Information on this program is available from the associate dean of graduate programs.

Detailed requirements of each program are listed alphabetically by department in the Curriculum section of the Bulletin.

Latest details on the status of new programs may be obtained from the appropriate school or department or from the Office of the Associate Dean, Graduate Programs.

### General Requirements for Admission

The basic requirements for admission of postbaccalaureate and graduate students to the California State University, San Bernardino are determined by the Board of Trustees of The California State University and are stated in Title 5, Subchapter 3 of the California Administrative Code.

Specifically, a student admitted with unclassified postbaccalaureate standing must: (1) have earned an acceptable baccalaureate degree at an institution accredited by a regional accrediting association or have completed equivalent academic preparation, (2) have attained a grade-point average of at least 2.5 in the last 60 semester units (90 quarter units) attempted, and (3) have been in good standing at the last college attended.

Applicants who do not qualify for admission under the provisions cited above may be admitted by special action if, on the basis of acceptable evidence, they are judged to possess sufficient academic, professional and other potential to merit such action. Petitions for admission by special action should be directed to the associate dean, academic services.

### Categories of Admission

Graduate and postbaccalaureate applicants may apply for a degree, a credential or certificate, or may not have a program objective. Depending on their objective, an applicant seeking admission to postbaccalaureate and/or graduate study at the University must be accepted in one of the following categories:

*Unclassified Postbaccalaureate Standing.* Students wishing to enroll in courses at the University with a professional growth objective, but not necessarily with an objective of a graduate degree or a teaching credential, may be

considered for admission with unclassified postbaccalaureate standing when they meet standards specified under General Requirements. No more than 20 units of credit earned in unclassified standing may be used to demonstrate fitness to complete the program or may be counted toward meeting requirements for a graduate degree. Such units will be accepted only upon approval of the department in which the student is taking a degree. Admission to the University with unclassified postbaccalaureate standing does not constitute admission to graduate degree programs.

*Classified Postbaccalaureate Standing (including Teaching Credentials).*

Students who have satisfied the general requirements for admission may be granted classified standing for the purpose of enrolling in a particular postbaccalaureate credential or certificate program. They must also satisfy such additional professional, personal, scholastic and other standards as are prescribed for the program, including qualifying examinations.

Postbaccalaureate students interested in working toward a multiple subjects credential, a single subject credential, a services credential or a specialist credential must achieve classified standing. Credential candidates must possess the following minimum grade-point averages:

- a. 2.6 in the last 90 quarter units attempted;
- b. 2.6 in course work in the academic field(s) authorized as subject matter preparation for the credential sought;
- c. 2.7 in professional education course work, with no course grade in this area lower than B-.

Information concerning admission requirements for the designated subjects credentials may be obtained from the Credentials Office (Pfau Library Building, fifth floor) or from the designated subjects coordinator.

*Conditionally Classified Graduate Standing.* Students who have satisfied the general requirements for admission, but who have deficiencies in prerequisite preparation which can be met by specified additional preparation, including qualifying examinations, may be admitted to a graduate degree curriculum with conditionally classified graduate standing. These deficiencies must be corrected in the specified manner in order for a student to continue in the graduate degree program.

*Classified Graduate Standing.* Students who have satisfied the general requirements for admission may be admitted to a graduate degree program as classified graduate students, if they satisfactorily meet the professional, personal, scholastic and other standards for admission to the program, including qualifying examinations, and if they have removed deficiencies in the specified manner while in conditionally classified graduate standing. Only those students who show promise of success and fitness will be admitted to graduate degree programs, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to continue in such programs.

## **TOEFL Requirement**

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal lan-

## 94 / Graduate Programs

guage of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). Individual campuses may require a higher score.

### Admissions Procedures

1. All students, including graduating seniors from this University, who plan to enroll as postbaccalaureate or graduate students for the first time during any regular academic quarter (fall, winter or spring), must file a formal application for admission and a \$35 nonrefundable application fee.

2. Former graduate students of the University must apply for readmission if: (a) they have been absent for more than two quarters (excluding summer sessions) immediately preceding the quarter for which readmission is sought, or (b) they have attended other colleges during their absences from California State University, San Bernardino. Students who have attended other colleges during their absences must submit official transcripts from those institutions. Students who have been absent for three quarters or more must again pay the \$35 application fee. (Students in good standing may be readmitted to the University after an absence of two quarters by filing a returning student code sheet, available in the Admissions Office.)

3. Students who plan to complete all of their work for an advanced degree in summer sessions must still apply for classified standing and advancement to candidacy at the appropriate time; and to become classified, students must file a formal application for admission to the University.

Requests for information regarding admission to the fall, winter or spring quarters and all completed application materials should be directed to the Office of Admissions, California State University, San Bernardino; Attention: Graduate Admissions.

The University begins accepting applications from new and readmitted students on November 1 for the following fall quarter, June 1 for the following winter quarter and August 1 for the following spring quarter. Applicants for postbaccalaureate programs are limited to the choice of a single campus on each application. If postbaccalaureate applicants wish to be considered by more than one campus, they must submit separate applications and fees to each.

### Requirements for a Master's Degree Program

Students pursuing an advanced degree through the University should, before completing 20 quarter units toward the degree, prepare and file an official document titled "an approved graduate program" with the department from which they plan to receive the degree. This program lists the specific requirements to be completed before the degree can be awarded. It must be approved by the student's major advisor, the chair of the student's major department and the associate dean of graduate programs. Once the program is accepted and approved, the student is officially advanced to degree candidacy.

The following standards apply to all master's degree approved graduate programs:

1. The program must include at least 45 quarter units of upper-division and graduate course work (i.e., courses numbered 300–699) taken while in postbaccalaureate standing. At least half of this work must be in courses organized primarily for graduate students.

2. The program must include 32 or more quarter units of course work taken in residence on this campus. Work taken in summer on this campus may be counted as residence credit. Credit by examination and credit for extension work are not considered as residence study.

3. The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

4. The program must follow the department curriculum in effect at the time the student is officially admitted (classified) in the major program or at the time the program is filed in the Office of the Associate Dean of Graduate Programs. Recommendations for any substitutions to the program must be approved in writing by the advisor and attached to the program.

5. The program course work must be completed with a minimum grade-point average of 3.0 (B). In addition, candidates must also maintain a minimum grade-point average of 3.0 (B) in all postbaccalaureate work undertaken at California State University, San Bernardino *and/or transfer work* following admission to classified graduate standing.

6. The program must include only courses with grades of "C" (2.0) or better. [Grades of C— (1.7) or less cannot be used.]

7. The program may not include more than 20 quarter units of work taken in unclassified status or before classified status was attained.

8. The program must be completed within a seven-year period. No more than seven years may elapse between the time of registration for the earliest course listed on the program and the completion of all requirements for the degree.

9. Courses numbered 100 to 299 and in the 800 series cannot be applied toward a master's degree. Courses taken to satisfy quantitative or qualitative deficiencies cannot be applied toward a master's degree.

10. A course taken at another college with a grade such as CR, S, or P cannot be accepted on a master's degree study plan unless such a course with such a grade is accepted by that college or university toward a graduate degree.

11. Graduate students will be required to pass (or to have passed) the upper-division writing requirement before advancement to candidacy, unless an earlier completion is specified for a particular program.

This requirement can be satisfied through one of three means:

1. Completion, with a grade of C or better, of one of the following courses: Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, or Social Sciences 495;

or

2. Completion, with a grade of C or better, of an equivalent advanced expository writing course at another college or university;

or

3. Satisfactory completion of a designated examination at this University.

Further information about the examination (for example, how much it costs, when it is offered, what it covers) is available from the Counseling and Testing Office, Physical Sciences Building, Room 227 (887-7437). Contact the Office of the Associate Dean of Graduate Programs (887-7755) for questions about the upper-division writing requirement as it relates to postbaccalaureate students.

### **Standards for Graduate Study**

In general, graduate study deals with more complex ideas and demands more sophisticated techniques, searching analysis and creative thinking than undergraduate study. Extensive research is required in both primary and secondary sources, and high quality writing is expected. The student is advised to consider these factors when deciding the amount of course work to be undertaken during any one quarter.

Students are required to maintain the following grade-point averages according to their postbaccalaureate or graduate standing.

Students in classified or conditionally classified graduate standing must maintain a 3.0 grade-point average in all work attempted.

Students in classified postbaccalaureate standing must maintain grade-point averages appropriate to their credential program. GPA requirements for the various credential programs are listed below:

Basic teaching credentials, single or multiple subject, require a 2.7 GPA in all work attempted with the exception of the designated subjects credential which requires a 2.5 GPA in all work.

Specialist or services credentials require a 3.0 grade-point average in all work attempted with the exception of the school psychologist services credential which requires a 3.5 GPA in all work.

Failure to maintain the appropriate grade-point average will result in the student being placed on probation. Students on probation must rectify their grade-point deficiencies by the end of the quarter of notification of probationary status, or they automatically will be disqualified and placed in unclassified postbaccalaureate status. To apply for reinstatement to a graduate degree or credential program after disqualification, the student must petition the appropriate program committee.

A student who has been disqualified from a master's degree program may be admitted to another program only on the recommendation of the department to which the student has applied and with the approval of the associate dean of graduate programs.

Students in unclassified postbaccalaureate standing and students seeking a second bachelor's degree must maintain a 2.5 GPA in all work attempted. Students in this category who are dismissed from the University for failure to maintain these standards must petition the associate dean, academic services for readmission to the University.

### **Academic Load**

To enroll in more than 15 units in any one quarter, a student must have written approval of the advisor and the associate dean of graduate programs. Students who must work to support themselves, who have time-consuming family responsibilities, who commute long distances, or who are in other difficult circumstances should, in conjunction with their advisors, weigh these factors and alter their course loads accordingly. Financial aid recipients should consult the Financial Aid Office.

### **Grievance Procedures**

Information concerning academic or nonacademic matters may be obtained from the Office of the Associate Dean, Academic Services. Generally, a grade

grievance must be initiated by the student within no more than 40 calendar days after the grade is recorded. The complete policy statement is available from the Office of the Associate Dean, Academic Services.

### **Election of Graduation Requirements**

A student remaining in continuous attendance in regular sessions and continuing in the same graduate curriculum in the University may, for the purposes of meeting graduation requirements, elect to meet (1) those requirements in effect at the time the student is admitted into a formal graduate program and enters the curriculum, or (2) those requirements in effect at the time of graduation from the University. Substitutions of or for discontinued courses may be authorized or required by the department or school graduate committee and by the associate dean of graduate programs.

### **Two Master's Degrees**

Students who wish to secure two different master's degrees may do so. No more than 10 quarter units used for one degree may be counted as part of the second degree, and then only by petition submitted to and approved by the concerned program committees or department or school graduate committees and the associate dean of graduate programs. In no case shall a student be awarded a given master's degree more than once.

### **Thesis**

Students enrolled in degree programs requiring a thesis should contact the Office of the Associate Dean of Graduate Programs for information regarding preparation of the manuscript, format and style, number of copies and so forth.

### **Graduation Requirement Check**

Candidates for degrees to be awarded at the end of a regular quarter or summer session must file applications with the Admissions Office. Procedures and applicable dates for the graduation-requirement checks are published each quarter in the Class Schedules.

### **Change in Approved Graduate Program**

If during graduate study a master's candidate wishes to change the approved program by adding or removing a course, this may be done under certain circumstances. A request for such a change must be initiated by the student and approved by the graduate advisor, the department chair and the associate dean of graduate programs.

### **Concurrent Enrollment**

A graduate student enrolled at the University may enroll concurrently for additional courses at another institution only with advance written approval from the graduate advisor and the associate dean of graduate programs. Ordinarily, permission will not be granted when the study load in the proposed combined program exceeds 15 quarter units.



### **Postbaccalaureate Credit for Seniors**

All course work (numbered 300 or above) completed in the final quarter before graduation that is not required for the bachelor's degree will automatically be considered postbaccalaureate credit unless the student petitions otherwise. Petitions are available in the Admissions and Records Office.

### **Credit by Evaluation (Examination)**

A graduate program, while building upon course work previously completed, should be used to acquire new knowledge and skills. Acquisition of units through credit by evaluation, on the other hand, relies inherently on old knowledge and skills. Therefore, prerequisite courses and other requirements outside of the formal program may be challenged, but units gained through credit by evaluation cannot be included within the formal program of study.

In cases where a graduate student may possess the necessary knowledge and skill and wishes to challenge a course within the formal program of study, a petition must be submitted sequentially to the instructor of the specific course, the department or school graduate committee, and the Committee on Graduate Education. Contingent to approval of the petition by the Committee on Graduate Education is the condition that an additional course be added to the formal program as elective credit to replace each course that is successfully challenged through credit by evaluation.

Students may not enroll in a course they plan to challenge but must register for credit by examination in the office of the school or department concerned before the first day of classes of the term in which the course is offered. Some presumptive evidence is required to indicate that the student has a reasonable chance of passing the examination. The student must complete the examination within the first two weeks of the term. Those students who are unsuccessful in challenging may add the course subject to the regulations for adding a class printed in the quarterly Class Schedule. A student who passes an examination is given the grade of CR for that course. No official record is made of failures in these examinations. No fee is charged for these examinations, though they are available only to currently enrolled students.

### **Repeat of Courses**

Classified and conditionally classified graduate students may be permitted to repeat a course taken as an undergraduate once with approval of the advisor and only to remove a deficiency. A subsequent repeat must be approved by the school or department graduate committee. In no case shall such credit be counted toward the units required for a master's degree. The last grade earned shall apply toward the student's cumulative postbaccalaureate GPA and shall not replace the grade in the undergraduate record.

Classified and conditionally classified graduate students may be permitted to repeat a course taken for graduate credit only by petition to and approval of the school or department graduate committee. The last grade earned will apply to the student's cumulative postbaccalaureate GPA.

Classified postbaccalaureate students (for example, students officially admitted to teaching credential programs) may be permitted to repeat a course taken as an undergraduate only by petition to and approval of the appropriate school

or department committee and the grade earned shall not replace the grade in the undergraduate record. Courses taken for postbaccalaureate credit may be repeated only by petition to and approval of the appropriate school or department committee. In both cases the last grade earned shall apply to the student's cumulative postbaccalaureate GPA.

Unclassified postbaccalaureate students may be permitted to repeat a course taken as an undergraduate only by petition to and approval of the associate dean of academic services, and the grade earned shall not replace the grade in the undergraduate record. Courses taken for postbaccalaureate credit by an undergraduate as defined under "Postbaccalaureate Credit for Seniors", may be repeated only by petition to and approval of the associate dean of graduate programs. In both cases, the last grade earned shall apply to the student's postbaccalaureate GPA.

Students in any category may be permitted to repeat one course taken for graduate credit (i.e., that is applied towards the M.A. or M. S. degree) one time. This is done only by petition to and approval of the school or department graduate committee. The last grade earned shall apply to the student's cumulative postbaccalaureate GPA.

### Transcripts

Applicants for unclassified postbaccalaureate standing must furnish official transcripts from *each* college or university attended. A separate transcript from each college or university is required even though one transcript may show work taken at another institution.

Applicants for classified postbaccalaureate standing (teaching credentials), or conditionally classified and classified graduate standing must furnish *two* official transcripts from each institution attended.

Students who attend summer sessions only need not file transcripts *unless* they plan to earn degrees or credentials at the California State University, San Bernardino.

### Admission of Summer Session Students

The University normally offers course work at all levels in its summer sessions, but enrollment in a summer session does not constitute admission to the University. Summer session students can pursue postbaccalaureate course work as unclassified students, but to become classified students they must file a formal application for admission to the University. Although resident study is highly desirable, some students may be able to complete degree programs through summer study only.

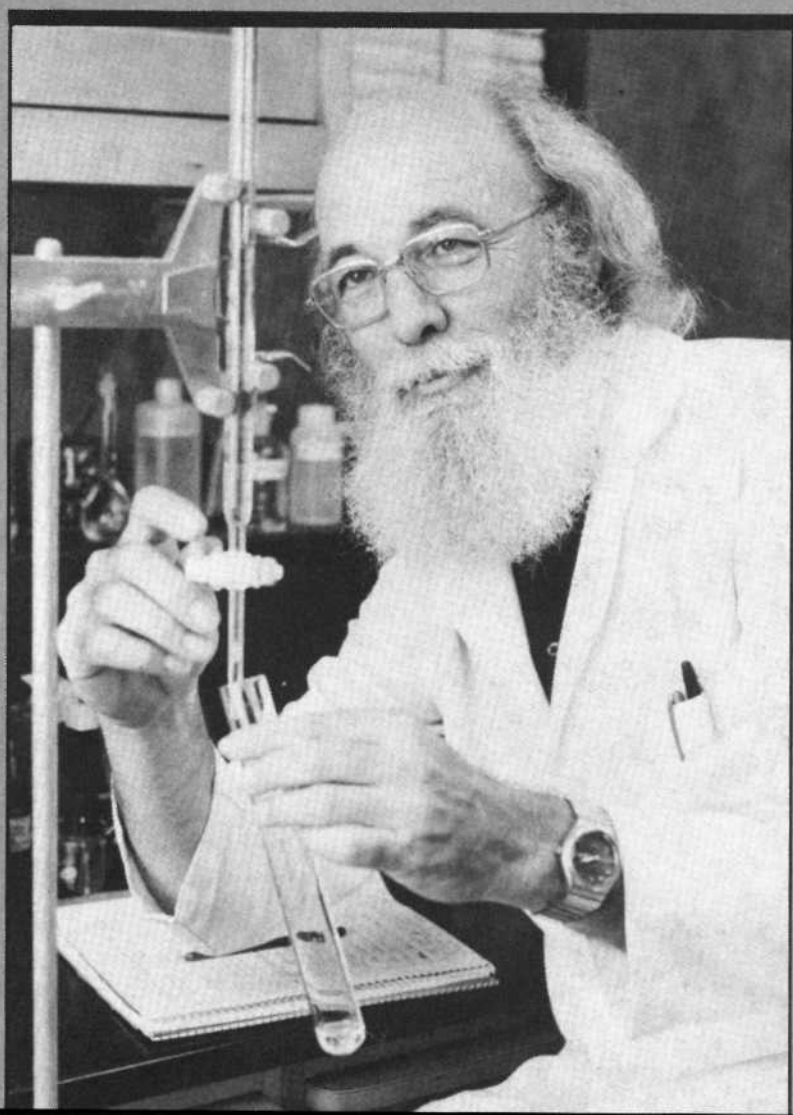
### Admission from Nonaccredited Schools

Graduates of nonaccredited schools who give evidence of unusual promise and superior background may petition the associate dean of academic programs for admission as unclassified postbaccalaureate students. Such students who wish to enter a specific graduate program must then petition the appropriate school or department for admission to conditionally classified graduate status. Requirements for admission to conditionally classified status shall be determined by the concerned department and approved by the Committee on Graduate Education.

## **100 / Graduate Programs**

### **Limitations of Enrollment**

Entrance of postbaccalaureate students to any program may be subject to limitations (i.e., each master's degree or credential program may restrict enrollment whenever limitations of facilities and/or staff warrant).





## CERTIFICATE PROGRAMS

The University offers a variety of programs leading to a certificate of competency in a special area.

Certificates may be earned by regularly matriculated or extended education students and denote successful completion of a prescribed program of study designed to (a) impart specified professional/vocational/career competencies; or (b) produce mastery of the content of a sub-field of an academic major (discipline); or (c) provide exposure to the range of materials in a traditional or emerging interdisciplinary field.

Courses offered for the certificate may be the same ones used to satisfy major, minor, credential or general education requirements. In order to qualify for a certificate undergraduate candidates must earn a grade-point average of 2.0 or better in applicable course work. Postbaccalaureate candidates must earn a grade-point average of 2.5. Standards for individual programs may exceed this minimum. Candidates must also receive two-thirds of their certificate-applicable credit from the University. The transferring of credit or the substitution of courses may occur only after application to the appropriate campus authority.

The certificate is awarded upon confirmation that the requirements for that program have been satisfied. The candidate is responsible for filing an application with the Office of Admissions for granting of the certificate, no later than the last term of certificate-applicable study, and for notifying the coordinator of the certificate program of completion of required course work. Award of the certificate will be noted on the student's transcript.

### Certificate in Accounting

*(Department of Accounting and Finance, Administration Building, Room 162, 887-7676)*

The requirements for a Certificate in Accounting are a minimum of 35 units distributed as follows:

1. Accounting 311. Concepts of Accounting
2. \*Accounting 312. Techniques of Accounting and Financial Management
3. \*Accounting 340. Managerial Accounting
- or
- \*Accounting 344. Cost Accounting Fundamentals
4. †\*Accounting 372. Intermediate Accounting
5. \*Accounting 373. Problem Areas in Intermediate Accounting
6. Plus two of the following electives chosen in consultation with an advisor:
  - \*Accounting 345. Cost Accounting and Control
  - \*Accounting 374. Reporting Issues in Intermediate Accounting
  - \*Accounting 426. Federal Taxation: Individuals
  - \*Accounting 427. Federal Taxation: Corporations and Fiduciaries

## 104 / Certificate Programs

- \*Accounting 428. Accounting for Combined Corporate Entities
- \*Accounting 438. Auditing
- \*Accounting 446. Microcomputers in Accounting
- \*Accounting 569. Theory and Practice of Internal Auditing
- \*Finance 313. Financial Management
- \*Finance 430. Financial Policies and Systems
- \*Finance 445. Financial Systems Management
- \*Public Administration 568. Accounting for Government and Not-For-Profit Organizations

\*Course has a prerequisite

† Placement test required

### **Certificate in Bilingual/Cross-cultural Studies: Spanish/English**

*(Department of Foreign Languages, Pfau Library Building, Room 236B, 887-7445)*

The requirements for a Certificate in Bilingual/Cross-cultural Studies: Spanish/English consist of the following:

1. \*Spanish 202. Grammar and Composition
2. \*Spanish 204. Introduction to Literary Texts
3. Communication 201. Intercultural Communication
4. Two courses from the following:
  - a. Art 328. Mexican Art
  - b. Art 329. Chicano Art
  - c. Communication 472. Hispanic Audiences
  - d. Foreign Languages 450. Literature in Translation: Mexico  
or  
Spanish 450. Mexican Literature in Translation
  - e. Humanities 460. Culture Studies: Mexico
  - f. Interdisciplinary Studies 460. Aspects of Chicano Culture
  - g. Music 351. Mexican and Chicano Music
  - h. \*Spanish 400. Masterpieces in Spanish and Spanish American Literature
  - i. \*Spanish 440. Mexican Literature
  - j. \*Spanish 514. Seminar in Hispanic Language, Literature or Civilization
5. Three courses from the following:
  - a. Anthropology 354. Cultures of Mexico and Central America
  - b. \*Education 344. Curriculum and Methods for Bilingual/Cross-cultural Education
  - c. Education 536. Teaching the Culturally Different
  - d. History 390. History of Mexico
  - e. History 391. Chicano History
  - f. Political Science 351. The Chicano and Politics
  - g. Psychology 347. Psychological Development of the Chicano
  - h. \*Sociology 342. The Chicano Family
  - i. \*Sociology 442. Chicano Social Stratification

\*Course has a prerequisite

### **Certificate in Business Skills for the Artist**

*(Department of Art, Visual Arts Building, Room 123, 887-7459)*

The requirements for the Certificate in Business Skills for the Artist are 30 quarter units distributed as follows:

1. Marketing 305. Marketing Principles
2. Accounting 311. Concepts of Accounting
3. Management 442. Small Business Management
4. Plus 15 units of upper-division studio art selected in consultation with an advisor.

### **Certificate in Children's Theatre**

*(Department of Theatre Arts, Creative Arts Building, Room 175, 887-7452)*

The requirements for a Certificate in Children's Theatre consist of the following:

1. Theatre Arts 211. Oral Interpretation of Literature  
or  
Theatre Arts 312. Oral Interpretation for the Theatre
2. Theatre Arts 385. Acting for Non-Majors  
or both  
Theatre Arts 251. Acting I  
and  
\*Theatre Arts 252. Acting II
3. Theatre Arts 382. Readers Theatre in the Classroom
4. Theatre Arts 383. Design and Construction for Children's Theatre
5. Theatre Arts 481. Creative Dramatics
6. \*Theatre Arts 482. Readers Theatre
7. Theatre Arts 483. Children's Theatre
8. Plus three or four units of performance/production to be chosen from any combination of Theatre Practica and/or Theatre Laboratory. (In lieu of this requirement students may select Theatre Arts 555, Independent Project in Children's Theatre Production, for five units; departmental approval of this project is required.)  
Theatre Arts 221. Theatre Laboratory: Performance  
Theatre Arts 320A. Theatre Practicum: Performance  
Theatre Arts 320B. Theatre Practicum: Imagination Players  
Theatre Arts 320C. Theatre Practicum: Touring Theatre  
Theatre Arts 320D. Theatre Practicum: Technical Production  
Theatre Arts 320E. Theatre Practicum: Special Projects

\*Course has a prerequisite

### **Certificate in Communication Skills**

*(Department of Communication, Creative Arts Building, Room 187, 887-7685)*

The requirements for the Certificate in Communication Skills consist of the following:

1. Communication 120. Oral Communication
2. Communication 201. Intercultural Communication



## 106 / Certificate Programs

3. One course chosen from:  
Communication 300. Elements of Public Speaking  
\*Communication 311. Professional and Technical Oral Communication  
Theatre Arts 211. Oral Interpretation of Literature
4. \*Communication 241. Interviewing  
or  
\*Psychology 315. Communication Processes
5. Public Administration 307. Public Relations in the Public Sector  
or  
Communication 341. Fundamentals of Public Relations
6. \*Communication 351. Topics in Professional Writing
7. One course chosen from:  
\*Art 380. Communications Design  
Music 416. Electronic Music  
Theatre Arts 312. Oral Interpretation for the Theatre
8. One course chosen from:  
\*Art 382A. Communications Specialities: Display and Tradeshow Design  
\*Art 382B. Communications Specialities: Illustration  
\*Art 382C. Communications Specialities: Typography/Production  
\*Art 382D. Communications Specialities: Publication Design  
\*Art 382E. Communications Specialities: Mark and Logo Design  
\*Art 382F. Communications Specialities: Packaging Design  
\*Art 382G. Communications Specialities: Seminar in Communications Design  
Art 383. Photography I  
Communication 386 or Art 386. Audio and Video Media  
\*Communication 361. Narrowcasting  
\*Education 547. Educational Technology  
Music 427. Studio Recording Techniques  
Music 519. Audio Production
9. Communication 501. Legal and Ethical Aspects of Communication  
\*Course has a prerequisite

## Certificate in Community Mental Health

*(Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 887-7348)*

The requirements for the Certificate in Community Mental Health are 30 quarter units distributed as follows:

1. Health Science 371. Community Health Services
2. Health Science 421. Community Mental Health
3. \*Psychology 387. Community Psychology
4. \*Psychology 390. Abnormal Psychology
5. Plus 10 units chosen from the following in consultation with an advisor:  
Health Science 336. Drug and Alcohol Use and Abuse

- \*Health Science 399. Community Service Project
- Health Science 423. Health Aspects of Aging
- Health Science 435. Child and Youth Development: Health Aspects
- Health Science 451. Principles of Epidemiology
- Health Science 470. Health Behavior and Community Health Education
- \*Health Science 492A. Field Study: Action/Research in Human Ecology and Health
- \*Psychology 201. Developmental Psychology
- \*Psychology 315. Communication Processes
- \*Psychology 329. Psychology of Adulthood and Aging
- \*Psychology 333. Drugs and Behavior
- \*Psychology 351. Behavior Modification: Principles and Applications
- \*Psychology 384. Personality and Social Development
- \*Psychology 385. Personality
- \*Psychology 391. Psychopathology of Childhood
- \*Psychology 490. Counseling Psychology
- \*Sociology 355. Medical Sociology
- \*Sociology 356. Sociology of Mental Illness

\*Course has a prerequisite

### **Certificate in Computer Programming**

*(Department of Computer Science, Pfau Library Building, Room 43, 887-7368)*

The requirements for a Certificate in Computer Programming consist of the following:

1. \*Computer Science 201. Introduction to Computer Science
2. \*Computer Science 202. Computer Programming
3. Plus 10 units of computer languages chosen from the following courses:
  - a. Computer Science 140. Introduction to Fortran Programming
  - or
  - \*Computer Science 240. Scientific Fortran
  - b. \*Computer Science 250. Cobol Programming
  - c. \*Computer Science 260. Assembly Language Programming
  - d. \*Computer Science 280. Low Level Language
  - e. \*Computer Science 290. High Level Language
4. Plus 10 units of upper-division electives to be selected in consultation with a certificate advisor in the Department of Computer Science.

\*Course has a prerequisite

### **Certificate in Criminal Justice**

*(Department of Criminal Justice, Administration Building, Room 183, 887-7252)*

The requirements for a Certificate in Criminal Justice consist of the following:

1. Criminal Justice 101. Introduction to Criminal Justice I
2. Criminal Justice 102. Introduction to Criminal Justice II

## **108 / Certificate Programs**

3. Criminal Justice/Sociology 103. Critical Issues in Criminal Justice  
or  
Criminal Justice 353. Juvenile Justice System
  4. Criminal Justice 351. Theories of Crime and Delinquency
  5. Criminal Justice/\*Sociology 357. Law Enforcement (Criminal Justice 357A is also acceptable)  
or  
Criminal Justice/\*Sociology 358. Punishment and Corrections
  6. Criminal Justice/\*Sociology 359. Law and Society
  7. Criminal Justice 301. Police and Private Security Administration  
or  
Criminal Justice 302. Courts and Corrections Administration
- \*Course has a prerequisite

### **Certificate in Education of the Gifted and Talented**

*(School of Education, Pfau Library Building, Room 521, 887-7571)*

The requirements for a Certificate in Education of the Gifted and Talented consist of the following:

1. \*Education 538. Introduction to Teaching the Gifted and Talented
2. \*Education 539. Programs for Teaching the Gifted and Talented
3. †\*Education 630. Topics in Research in Teaching and Learning:  
Education of the Gifted and Talented
4. †\*Education 679F. Field Work: Education of the Gifted and Talented (for a total of 5 units)

\*Course has a prerequisite

†Course is open to postbaccalaureate and graduate students only

### **Certificate in Educational Computing**

*(School of Education, Pfau Library Building, Room 522, 887-7570)*

The requirements for a Certificate in Educational Computing consist of the following:

1. \*Education 546. Microcomputers in Education
2. \*Education 551. Computers and Learning
3. \*Education 552. Computers: Curriculum and Instruction
4. \*Education 553. Computers: Development of Instructional Materials

\* Course has a prerequisite

### **Certificate in Educational Technology**

*(School of Education, Pfau Library Building, Room 87, 887-7296)*

The requirements for a Certificate in Educational Technology consist of the following:

1. Education 544. Construction of Instructional Materials
2. \*Education 546. Microcomputers in Education
3. \*Education 547. Educational Technology

4. \*Education 548. Seminar in Instructional Design
  5. Plus 10 additional units to be chosen from the following courses:
    - \*Communication 242. Theory and Practice of Newspaper Journalism
    - Communication 386 or Art 386. Audio and Video Media
    - Computer Science 125. Introduction to BASIC Programming
    - †Education 641. Media and Strategies in Teaching
    - Music 519. Audio Production
- \*Course has a prerequisite  
†Course is open to postbaccalaureate and graduate students only

### **Certificate in Financial Management**

*(Department of Accounting and Finance, Administration Building, Room 162, 887-7676)*

The requirements for a Certificate in Financial Management are a minimum of 35 units distributed as follows:

1. Accounting 311. Concepts of Accounting
  2. \*Accounting 312. Techniques of Accounting and Financial Management
  3. \*Finance 313. Financial Management
  4. \*Finance 430. Financial Policies and Systems
  5. \*Finance 435. Investment Analysis
  6. Plus two of the following electives chosen in consultation with an advisor:
    - \*Accounting 340. Managerial Accounting
    - †\*Accounting 372. Intermediate Accounting
    - \*Accounting 373. Problem Areas in Intermediate Accounting
    - \*Accounting 426. Federal Taxation: Individuals
    - \*Economics 410. Money and Banking
    - \*Economics 475. Public Finance
    - \*Finance 432. Financial Intermediaries
- \*Course has a prerequisite  
†Placement test required

### **Certificate for French/English and English/French Translators**

*(Department of Foreign Languages, Pfau Library Building, Room 276, 887-7445.)*

The requirements for a Certificate for French/English and English/French Translators are proficiency in French equal to that of French 103 or its equivalent \*\* and completion of the following courses with a GPA of 2.7 or better.

1. \*English 495. Expository Writing
2. \*French 200. Conversation and Composition
3. \*French 302. Advanced French Composition
4. \*French 309. French for Translators (A, B and C for a total of 15 units)
5. Humanities 460. Culture Studies: France

\*Course has a prerequisite  
\*\*Entering students with previous training in French, and those who are native speakers, should contact the department for information about advanced placement and credit by examination.

## **110 / Certificate Programs**

### **Certificate in General Business**

*(Department of Management, Administration Building, Room 153, 887-7678)*

The requirements for a Certificate in General Business consist of the following:

1. Management 302 or Psychology 302. Management and Organizational Behavior
2. \*Management Science 304. Quantitative Analysis for Management
3. Marketing 305. Marketing Principles
4. Accounting 311. Concepts of Accounting
5. \*Accounting 312. Techniques of Accounting and Financial Management
6. \*Finance 313. Financial Management
7. Management 330. Legal Environment of Business

\*Course has a prerequisite

### **Certificate for German/English and English/German Translators**

*(Department of Foreign Languages, Pfau Library Building, Room 276, 887-7445.)*

The requirements for a Certificate for German/English and English/German Translators are proficiency in German equal to that of German 103 or its equivalent \*\* and completion of the following courses with a GPA of 2.7 or better.

1. \*German 200. Conversation and Composition
2. \*German 308. Readings in German Literature
3. \*German 309. Advanced German Composition
4. \*German 312. Practical Translation
5. \*German 313. Technical and Scientific Translation
6. \*English 495. Expository Writing
7. Humanities 460. Culture Studies: Germany

\*Course has a prerequisite

\*\*Entering students with previous training in German, and those who are native speakers, should contact the department for information about advanced placement and credit by examination.

### **Certificate in Gerontology (Applied)**

*(Department of Sociology, Administration Building, Room 183, 887-7224)*

The requirements for a Certificate in Applied Gerontology consist of the following:

1. Health Science 423. Health Aspects of Aging  
or  
\*Nursing 454. Anatomical/Physiological Processes of Aging
2. \*Psychology 329. Psychology of Adulthood and Aging
3. \*Sociology 330. Social Gerontology
4. Plus 15 units of elective courses selected with the approval of an advisor. No more than six units in independent study or field study may be applied toward completion of certificate.

Natural Science Electives

- a. \*Biology 222. Human Anatomy and Physiology
- b. \*Biology 314. Biology of Human Sexuality
- c. \*Biology 315. Introduction to Human Embryology
- d. \*Biology 316. Human Genetics
- e. \*Health Science 358. Foods, Nutrition and Health  
or
- \*Health Science 362. Principles of Nutrition
- f. Health Science 371. Community Health Services
- g. Health Science 440. Family Health
- h. \*Health Science 452. Special Topics in Health Science and Human Ecology: Death and Dying
- i. \*Health Science 492. Field Study
- j. \*Health Science 595. Independent Study
- k. \*Nursing 455. Chronic Diseases of the Aging Population
- l. \*Nursing 456. Adaptation to Chronic Illness
- m. \*Nursing 457. Health Services for the Non-Institutionalized Aging Person
- n. \*Nursing 595. Independent Study

Social Science Electives

- a. Anthropology 331. Anthropology of Human Development
- b. \*Psychology 578. Advanced Topics in Psychology: Aging
- c. \*Psychology 580. Advanced Seminar in Psychology: Death and Dying
- d. \*Psychology 575. Internship in Psychology
- e. \*Psychology 595. Independent Study
- f. \*Sociology 434. Community Organization
- g. \*Sociology 575. Internship in Sociology and Social Work
- h. \*Sociology 590. Seminar in Sociology: Aging
- i. \*Sociology 595. Independent Study

\*Course has a prerequisite

**Certificate in Health Services Administration and Planning**

*(Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 887-7348)*

The requirements for a Certificate in Health Services Administration and Planning consist of the following:

1. Management 302. Management and Organizational Behavior
2. Accounting 311. Concepts of Accounting
3. Health Science 371. Community Health Services
4. \*Health Science 415. Medical Care Organizations
5. \*Health Science 422. Health Planning
6. \*Health Science 427. Hospital Administration  
or
- \*Health Science 455. Organization and Management of Long-Term Care Facilities

\*Course has a prerequisite

## 112 / Certificate Programs

### Certificate in Human Resources Management

*(Department of Management, Administration Building, Room 153, 887-7678)*

The requirements for a Certificate in Human Resources Management are a minimum of 30 units distributed as follows:

1. Management 302 or Psychology 302. Management and Organizational Behavior
2. \*Management 455. Human Resources Management  
or  
\*Psychology 355. Industrial Psychology
3. \*Management 457. Industrial and Labor Relations
4. \*Management 458. Employment Policies and Practices
5. Plus two of the following electives chosen in consultation with an advisor:  
Management 350. Administrative Communications  
\*Management 355. Management of Administrative Conflict  
\*Management 402. Studies in Organizational Behavior  
Management 403 or Communication 403. Interpersonal Relations  
\*Management 451. Organization and Management Theory  
\*Management 456. Psychology of Human Resources  
Management 485. Women in Administration  
\*Management 532. Human Factors in System Development  
\*Management 551. Methods of Organizational Change  
Public Administration 557. Public Sector Labor Relations  
\*Public Administration 562. Public Personnel Administration

\*Course has a prerequisite

### Certificate in Information Management

*(Department of Marketing, Management Science and Information Management, Administration Building, Room 135, 887-7711)*

The requirements for a Certificate in Information Management are a minimum of 35 units distributed as follows:

1. Information Management 220. Fundamentals of Business Data Processing
2. \*Information Management 309. Information Management
3. Plus 25 units chosen from the following:  
\*Information Management 471. Information Systems Planning  
\*Information Management 472. Information Technology  
\*Information Management 473. Information Forecasting  
\*Information Management 474. Data Base Management  
\*Information Management 476. Systems Analysis and Design  
\*Information Management 477. Decision Support Systems  
\*Information Management 478. Information Problem Solving  
\*Information Management 479. Studies in Information Management  
\*Information Management 481. Information Processing

\*Course has a prerequisite

### **Certificate in International Relations**

*(Department of Political Science, Administration Building, Room 130, 887-7238)*

The requirements for a Certificate in International Relations consist of:

1. 30 units chosen from the following, with no more than 20 units from any one discipline:
  - \*Economics 420. Comparative Economic Systems
  - \*Economics 430. International Economics
  - Economics 450. Economic Development
  - History 556. Foreign Relations of the United States
  - Marketing 470. International Marketing Management
  - Political Science 300. Western Political Systems
  - Political Science 304. Communist Political Systems
  - Political Science 306. Developing Political Systems
  - Political Science 325. American Foreign Policy
  - Political Science 400. International Politics
  - Political Science 484. National Security Policy
  - Political Science 500. International Law
  - Political Science 510. International Organization
  - Political Science 590. Seminar in International Relations
  - Social Sciences 300. Nonwestern World

\*Course has a prerequisite

### **Certificate in Latin American Studies**

*(Department of Anthropology, Student Services Building, Room 139, 887-7281)*

The requirements for a Certificate in Latin American Studies consist of:

1. 30 units to be chosen from the following courses. No more than 10 units may be taken from any one discipline.
  - Anthropology 305. North American Prehistory
  - Anthropology 306. Aztecs, Maya and their Predecessors
  - Anthropology 307. Incas and their Predecessors
  - Anthropology 354. Cultures of Mexico and Central America
  - Anthropology 356. Cultures of South America
  - Art 324. Pre-Columbian Art
  - Art 328. Mexican Art
  - Foreign Languages 450. Literature in Translation (when topic pertains to Mexico or Latin America)
  - Geography 321. Area Study: Latin America
  - Geography 390. Selected Topics in Geography: Tropical Geography
  - History 390. History of Mexico
  - History 469. Colonial Latin America
  - History 470. Modern Latin America
  - Humanities 460. Culture Studies (when topic pertains to Mexico or Latin America)



## 114 / Certificate Programs

- Music 351. Mexican and Chicano Music
- Social Sciences 304. Contemporary Latin America
- \*Spanish 400. Masterpieces in Spanish and Spanish American Literature  
(when topic pertains to Latin America)
- \*Spanish 440. Mexican Literature
- Spanish 450. Mexican Literature in Translation
- \*Spanish 514. Seminar in Hispanic Language, Literature or Civilization  
(when topic pertains to Latin America)

\*Course has a prerequisite

### Certificate in Local Government Planning

*(Department of Public Administration, Administration Building, Room 138, 887-7704)*

The requirements for a Certificate in Local Government Planning consist of the following:

1. Public Administration 521. Principles of Planning
2. Public Administration 563. Governmental Budgeting
3. Public Administration 564. Local Public Administration
4. Plus three of the following electives chosen in consultation with an advisor:
  - Economics 360. Economics of the Environment
  - \*Economics 475. Public Finance
  - Geography 415. Urban Planning and Land Development
  - Geography 440. Urban Geography
  - Health Science 355. Health, Consumer and Environmental Law
  - Health Science 372. Environmental Administration and Environmental Impact Reporting
  - Health Science 401. Land Use: Health Aspects

\*Course has a prerequisite

### Certificate in Marketing Management

*(Department of Marketing, Management Science and Information Management, Administration Building, Room 135, 887-7711)*

The requirements for a Certificate in Marketing Management are a minimum of 30 units distributed as follows:

1. Marketing 305. Marketing Principles
2. \*Marketing 410. Consumer Behavior
3. \*Marketing 440. Marketing Research
4. \*Marketing 441. Marketing Planning and Control
5. Plus two of the following electives chosen in consultation with an advisor:
  - \*Marketing 411. Retailing
  - \*Marketing 412. Advertising
  - \*Marketing 414. Sales and Sales Management
  - \*Marketing 418. Industrial Marketing
  - \*Marketing 443. Advertising Campaign
  - Marketing 470. International Marketing Management

- \*Marketing 515. Channels of Distribution
- \*Marketing 516. Product Management
- \*Marketing 575. Internship in Marketing
- \*Marketing 595. Independent Study

\* Course has a prerequisite

### **Certificate in Military Science**

*(Office of Military Science, Student Services Building, Room 124, 887-7273)*

The requirements for a Certificate in Military Science consist of the following:

1. Management 302. Management and Organizational Behavior
2. History 325A. The American Military Experience: 1860–1918
3. History 325B. The American Military Experience: 1919–1942
4. History 325C. The American Military Experience: 1942–Present
5. Physical Education 146D. Orienteering
6. Political Science 484. National Security Policy
7. \*Sociology 369A. Military Sociology: Comparative Military Sociology
8. \*Sociology 369B. Military Sociology: American Military Sociology
9. Plus four additional units to be chosen from the following courses:
  - Physical Education 146A. Backpacking
  - Physical Education 146B. Camping
  - Physical Education 146C. Mountaineering
  - Physical Education 146E. Survival Skills

\*Course has a prerequisite

### **Certificate in Museum Studies**

*(Department of Anthropology, Student Services Building, Room 139, 887-7281)*

The requirements for a Certificate in Museum Studies consist of the following:

1. Anthropology 375. Museum Methods
2. \*Anthropology 575. Internship in Anthropology (for a total of 10 units)
3. 10 units in Administration, Data Management, or Design elective courses selected from the following list of courses in consultation with an advisor:

#### *Administration:*

Accounting 311. Concepts of Accounting  
Management 442. Small Business Management  
Public Administration or Political Science 380. Introduction to Public Administration

#### *Data Management:*

Computer Science 120. Fundamentals of Computing  
or

Information Management 220. Fundamentals of Business Data Processing

#### *Design:*

Art 201. Foundation Studio in Art  
and

Art 203. Foundation Studio in Art

\*Art 380. Communications Design

Art 383. Photography I

## 116 / Certificate Programs

4. 10 units of electives, 5 each from any two of the following four areas to be selected in consultation with an advisor:

### *Anthropology*

#### *Archaeology/Physical Anthropology:*

Courses numbered 300–325

#### *Culture Areas:*

Courses numbered 351–361

### *Art/Art History:*

Art 210A. Western Art History: Prehistoric Times through the Middle Ages

Art 210B. Western Art History: Renaissance to the Present

Courses numbered 306–329, 410–424

### *History:*

Any History course, except History 399, 575 and 595

### *Science*

#### *Life Sciences:*

Biology 100. Topics in Biology

Biology 202. Biology of Populations

Health Science 120. Health and Society: An Ecological Approach

#### *Physical Sciences:*

Chemistry 100. Chemistry in the Modern World

\*Chemistry 205. Fundamentals of Chemistry I: General Chemistry

\*Chemistry 215. Introductory Chemistry I: Atomic Structure and Chemical Bonding

Earth Science 101. Physical Geology

Geography 103. Physical Geography

Natural Sciences 100. Descriptive Astronomy

\*Physics 100. Physics in the Modern World

\*Physics 121. Basic Concepts of Physics I  
and

Physics 225. Physics Laboratory I

\*Physics 221. Classical Mechanics  
and

Physics 225. Physics Laboratory I

\*Course has a prerequisite

## Certificate in Occupational Safety and Health

*(Department of Health Science and Human Ecology, Physical Sciences Building, Room 119, 887-7348)*

The requirements for a Certificate in Occupational Safety and Health consist of the following:

1. \*Health Science 352. Environmental Health I
2. \*Health Science 353. Environmental Health II (or other course selected in consultation with an advisor)
3. Health Science 361. Principles of Accident Prevention
4. Health Science 366. Occupational Health and the Work Environment
5. Health Science 381. Occupational Safety
6. \*Health Science 363. Toxicology

7. Health Science 425. Hearing Conservation and Noise Measurement
8. \*Health Science 476. Industrial Hygiene (or other course selected in consultation with an advisor)

\*Course has a prerequisite

### **Certificate in Paralegal Studies**

*(Department of Political Science, Administration Building, Room 130, 887-7238)*

The requirements for a Certificate in Paralegal Studies consist of:

1. Paralegal Studies 385. Legal Research and Writing
2. 35 additional units to be chosen from the 45 below:
  - Paralegal Studies 370. Wills, Estates and Trusts
  - Paralegal Studies 371. Contract Law
  - Paralegal Studies 372. Tort Law
  - Paralegal Studies 373. Property Law
  - Paralegal Studies 376. Family Law and Community Property
  - Paralegal Studies 377. Trial Practice
  - Paralegal Studies 378. Corporate Law
  - Paralegal Studies 380. Criminal Law
  - \*Paralegal Studies 590. Seminar in Paralegal Studies
3. 15 additional units to be selected from:
  - \*Accounting 444. Professional Accounting Law
  - \*History 540. Constitutional History of the United States
  - Management 330. Legal Environment of Business
  - \*Paralegal Studies 575. Internship in Paralegal Studies
  - Philosophy 465. Philosophy of Law
  - Political Science 328. Judicial Process
  - Political Science 410. American Constitutional Law
  - Political Science 411. The Bill of Rights
  - \*Political Science 535. Seminar in Constitutional Law
  - \*Sociology 359 or Criminal Justice 359. Law and Society

\*Course has a prerequisite

*Students are strongly advised to take Paralegal Studies 385 in the first quarter of the program as it provides an introduction to legal language.*

### **Certificate in Reading for the Classroom Teacher**

*(Department of Special Programs, Pfau Library Building, Room 520, 887-7581)*

Admission requirements for the certificate:

1. Postbaccalaureate standing.
2. Concurrent enrollment in or completion of a multiple subject or single subject teaching credential or the equivalent.

The course work requirements for a Certificate in Reading for the Classroom Teacher consist of:

1. Education 611. Reading Comprehension: Topics in Enhancing Communication Skills (Taken twice as topics change)
2. Education 620. Effective Classroom Communications
3. Education 629. Special Topics in Reading (Taken twice as topics change)
4. \*Education 631. Developmental Reading

\*Course has a prerequisite

## 118 / Certificate Programs

### Certificate in Rehabilitation Counseling

*(Department of Special Programs, Pfau Library Building, Room 274, 887-7776)*

The requirements for a Certificate in Rehabilitation Counseling consist of the following:

1. \*Education 531. Introduction to Counseling
2. \*Education 615. Introduction to Rehabilitation Counseling
3. †\*Education 616. Multiple Aspects of Disability
4. †\*Education 617. Vocational Assessment and Development
5. †\*Education 618. Applied Job Placement
6. †\*Education 649. Organizational Development of Rehabilitation Services

A student who has already successfully completed Education 531 (with a grade of at least B or 3.0 minimum) prior to entering the certificate program may substitute one of the following courses for Education 531:

1. †\*Education 637. Foundations of Vocational Education
2. † Education 650. Educational and Career Planning
3. † Education 655. Cross-Cultural Counseling

\*Course has a prerequisite

†Course is open to postbaccalaureate and graduate students only

### Certificate in Religious Studies

*(Department of Philosophy, Pfau Library Building, Room 236B, 887-7469)*

The requirements for a Certificate in Religious Studies consist of:

1. 30 units to be chosen from the following:
  - Anthropology 480. Magic, Religion and Science
  - English 315. Studies in Literary Genres: The Bible as Literature
  - English 333. Myth and Epic
  - History 380. History of World Religions
  - Humanities 496. Selected Topics in Humanities: The Death of God
  - Philosophy 450. Man's Search for God or Gods
  - Philosophy 452. Classics of Eastern Thought

\*Sociology 380. Sociology of Religion

\*Course has a prerequisite

### Certificate in School Business Management

*(School of Education, Pfau Library Building, Room 39B, 887-7588)*

The requirements for a Certificate in School Business Management consist of the following:

1. \*Education 511. Contemporary School Business Management
2. Education 512. School Finance and Budgeting
3. \*Education 513. School Accounts and Related Functions
4. Two courses chosen from:
  - Education 514A. School Business Management and Service Functions: Purchasing, Warehousing and Inventory
  - Education 514B. School Business Management and Service Functions: Transportation and Risk Management
  - Education 514C. School Business Management and Service Functions: Facilities Planning, Construction
  - Education 514D. School Business Management and Service Functions: Computer Services in Business Functions

5. Plus one elective to be selected from:  
Education 530. Psychology and Education of Exceptional Children  
\*Education 531. Introduction to Counseling  
or  
Five additional units of Education 514  
Public Administration 307. Public Relations in the Public Sector  
\*Course has a prerequisite

### **Certificate in Small Business Management**

*(Department of Management, Administration Building, Room 153, 887-7678)*

The requirements for a Certificate in Small Business Management are a minimum of 40 units distributed as follows:

1. Management 302 or Psychology 302. Management and Organizational Behavior
2. Marketing 305. Marketing Principles
3. Accounting 311. Concepts of Accounting
4. \*Accounting 312. Techniques of Accounting and Financial Management
5. \*Finance 313. Financial Management
6. Management 442. Small Business Management
7. \*Finance 445. Financial Systems Management
8. \*Management 575. Internship in Management  
(Small Business Consulting)

\*Course has a prerequisite

### **Certificate in Social Work**

*(Department of Sociology, Administration Building, Room 183, 887-7224)*

The requirements for a Certificate in Social Work consist of the following:

1. Sociology 100. The Study of Society
2. \*Sociology 318. Social Welfare Policies and Services
3. \*Sociology 339. Socialization
4. \*Sociology 434. Community Organization
5. \*Sociology 436. Group Dynamics
6. \*Sociology 484. Social Casework
7. †\*Sociology 575. Internship in Sociology and Social Work (2 quarters 10 units)

\*Course has a prerequisite

† Internship will be waived for those having one year of social work experience in a social agency.

### **Certificate in Spanish for Public Services**

*(Department of Foreign Languages, Piau Library Building, Room 276, 887-7445)*

The requirements for a Certificate in Spanish for Public Services are proficiency in Spanish equal to that of Spanish 103 or its equivalent\*\* and completion of the following courses:

1. \*Spanish 202. Grammar and Composition
2. \*Spanish 302. Theory and Practice in Composition
3. \*Spanish 312. Techniques for Professional Interpreting and Translating in Spanish

## 120 / Certificate Programs

4. \*Spanish 314. Advanced Conversation
5. \*Spanish 316. Spanish in Communication Media
6. Plus one additional course to be selected from:
  - \*Spanish 400. Masterpieces in Spanish and Spanish American Literature
  - \*Spanish 440. Mexican Literature
  - \*Spanish 514. Seminar in Hispanic Language, Literature or Civilization

\*Course has a prerequisite

\*\*Entering students with previous training in Spanish, and those who are native speakers, should contact the department for information about advanced placement and credit by examination.

### Certificate in Teaching Basic Mathematics

*(Department of Mathematics, Biology Building, Room 111, 887-7351)*

The requirements for a Certificate in Teaching Basic Mathematics consist of the following:

1. A valid California teaching credential in a subject other than mathematics
  2. \*Mathematics 110. Introduction to College Mathematics
  3. \*Mathematics 120. Pre-Calculus Mathematics
  4. Mathematics 160. Geometry in Two and Three Dimensions
  5. \*Mathematics 200. Basic Concepts of Calculus
  6. Mathematics 302. Problem Solving in Mathematics
  7. \*Mathematics 499. Teaching Mathematics
- or
- \*Mathematics 301. Basic Mathematics for Educators

With departmental permission, mathematics courses with a calculus prerequisite may be substituted for any of Mathematics 110, 120 or 160.

\*Course has a prerequisite

### Certificate in Urban Planning

*(Department of Geography, Student Services Building, Room 139, 887-7280)*

The requirements for a Certificate in Urban Planning consist of 30 quarter units distributed as follows:

1. \*Geography 301. Cartography
  2. \*Geography 370. Landforms, Soils and Remote Sensing
  3. Geography 415. Urban Planning and Land Development
  4. Geography 440. Urban Geography
  5. Economics 360. Economics of the Environment
- or
- Geography 350. Conservation and Natural Resources
6. Plus five units chosen from the following:
    - Anthropology 493. Urban Anthropology
    - \*Geography 575. Internship in Geography
    - Health Science 372. Environmental Administration and Environmental Impact Reporting
    - Health Science 401. Land Use: Health Aspects
    - Public Administration 521. Principles of Planning
    - \*Sociology 420. Population and Social Ecology
    - \*Sociology 430. Urban Sociology

\*Course has a prerequisite

## Certificate in Women's Studies

*(Academic Programs, Administration Building, Room 196, 887-7521)*

The requirements for a Certificate in Women's Studies consist of:

1. 30 units chosen from the following courses:
    - Anthropology 333. Sex and Gender in Cross-Cultural Perspective
    - \*Biology 314. Biology of Human Sexuality
    - Economics 333. Women in the Economy
    - Health Science 404. Women's Health Issues
    - History 513. Women in U.S. History
    - Management 485. Women in Administration
    - Philosophy 357. Philosophy and Sexual Politics
    - Political Science 340. Sex and Politics
    - \*Psychology 331. The Psychology of Women
    - \*Sociology 344. Sex Roles: The Life Cycleand from  
a variety of seminar courses such as Women in Art, Drama, and Literature  
and from  
certain 800-level extension course offerings, with no more than 15 units  
being taken at the 800 level
- \*Course has a prerequisite

## Certificate in Writing: Creative Writing

*(Department of English, Pfau Library Building, Room 242, 887-7446)*

The requirements for a Certificate in Creative Writing consist of:

1. \*English 317. Introduction to Creative Writing: Poetry
2. \*English 318. Introduction to Creative Writing: Fiction
3. \*English 495. Expository Writing (or Education 495, Humanities 495, Management 495, Natural Sciences 495 or Social Sciences 495)
4. \*English 513. Advanced Creative Writing
5. Plus either category A or B below:
  - A. 5 units chosen from any 400-level English course (except English 495)  
and 5 units chosen from:
    - \*English 522. Independent Study in Writing
    - or
    - †\*English 621. Approaches to Imaginative Writing
  - B. \*English 522. Independent Study in Writing  
and  
†\*English 621. Approaches to Imaginative Writing

\*Course has a prerequisite.

†Course is open to postbaccalaureate and graduate students only

## Certificate in Writing: Professional Writing

*(Department of English, Pfau Library Building, Room 242, 887-7446)*

The requirements for a Certificate in Professional Writing consist of:

1. English 311. The English Language
2. \*English 495. Expository Writing (or Education 495, Humanities 495, Management 495, Natural Sciences 495 or Social Sciences 495)



## 122 / Certificate Programs

3. \*Communication 242. Theory and Practice of Newspaper Journalism
4. Communication 243A. Communication Practicum: Journalism and Public Relations
5. \*Communication 351. Topics in Professional Writing  
or  
†English 631. Approaches to Professional Writing
6. Plus either category A or B below.
  - A. 5 units chosen from the following:
    - \*English 500. Grammar and Linguistics
    - \*English 505. History of the English Language
    - Philosophy 330. Philosophy of Languageand 5 units chosen from the following:
    - \*Communication 351. Topics in Professional Writing (if not taken as a required course)
    - \*English 522. Independent Study in Writing
    - \*English 565A/B. Special Studies in Writing (with appropriate topic)
    - †English 631. Approaches to Professional Writing (if not taken as a required course)
  - B. 10 units chosen from:
    - \*Communication 351. Topics in Professional Writing (if not taken as a required course)
    - \*English 522. Independent Study in Writing
    - \*English 565A/B. Special Studies in Writing (with appropriate topic)
    - †English 631. Approaches to Professional Writing (if not taken as a required course)

\*Course has a prerequisite

†Course is open to postbaccalaureate and graduate students only





## EXTENDED EDUCATION

The term extended education denotes a variety of courses, programs, activities and events through which the services and resources of the University are made available to a broad, general audience and are brought to bear on immediate issues and interests of the larger community of which the University is a part.

Responding to diverse educational needs of residents of its two-county service area, the University undertakes to develop opportunities for those seeking personal growth and fulfillment, for those pursuing professional renewal and advancement, for others aspiring to resume an education that has been interrupted or is incomplete, and for still others whose personal experience or community situation dictates an organized effort to understand and affect the conditions of modern urban life.

The California State University regards its extended education credit-bearing programs as integral parts of the institution. These programs are viewed as extensions of the University's educational services and are in concert with its overall mission and purpose. The programs and courses in extended education are expected to meet the standards of quality which the institution sets for its other programs and courses, in terms of resources, faculty, level of instruction, evaluation and support services.

### Extended Education Study and Credits

Extended education offerings include both courses selected from the established curriculum and new courses designed to meet current needs and desires expressed by groups, professions and communities.

The University has a plan which also opens classes offered in the regular program of the University to extended education students, answering the needs of those who wish to take a specific course or two, but do not want to matriculate to do so. These registrations are handled in the Office of Extended Education and are accommodated on an individual, space-available basis. Credits earned are degree-applicable but do not carry residence credit.

A maximum of 36 quarter units of degree-applicable credit earned through extended education may be applied to a baccalaureate degree program. A maximum of 13 quarter units of graduate degree-applicable credit earned through extended education may be accepted toward a master's degree program.

Credits earned in courses offered only through extended education and numbered in the 800-series are not degree-applicable though they may satisfy salary hurdle, credential, relicensure or similar professional requirements, or serve for personal growth.

Only those credits will be accepted for transfer which are acceptable toward a degree or credential at the institution offering the courses.

Individuals interested in the extended education program may be placed on the mailing list for regular announcements of courses by contacting the Office of Extended Education.

### **Noncredit Courses**

In addition to its many credit courses, the Office of Extended Education offers a variety of noncredit courses and programs designed in response to the needs and interests of people seeking personal growth or professional enrichment. Such courses carry with them no academic credit but, in some instances, may award continuing education units (CEUs) or contact hours (CECHs) to verify to employers or professional associations that the individual has completed a short-term educational program. In many cases, it is also possible to enroll in credit-bearing courses on a noncredit basis.

### **Summer and Special Sessions**

Summer and special sessions afford both regular and nonmatriculated students opportunity to pursue undergraduate or graduate study in virtually all of the University's academic majors and in professional programs.

There is no prior application required nor are there formal procedures for admission to summer or special sessions. Course credits earned in the summer denote residence credit and are accepted toward degree programs on campus when students matriculate in the University.

Announcement of the summer programs is made in early spring each year. The calendar and schedule of classes may be obtained without charge from the Office of Extended Education.

### **Inservice and Professional Education Programs**

Within this scope of activity, the office provides consulting services, training development programs, educational components for grants, needs assessment and curriculum planning for organizations.

In addition, the office has designed a variety of professional development packages to help businesses and organizations accelerate the professional effectiveness, productivity and problem-solving skills of their staffs. Custom-designed programs to meet specific personnel needs may be developed, as well.

### **Conferences**

Professional groups or organizations planning conferences and meetings may contact the Office of Extended Education for assistance.

Depending upon the scope and content of the particular conference, the Office of Extended Education may be able to provide co-sponsorship, arrange for meeting and meal facilities, locate keynote speakers and other program presenters, provide registration, certificates of completion and, in many cases, professional advancement or extended education credit.

### **Open University**

Many of the University's regular courses are open to nonmatriculated students through extended education under a program called Open University. Cal State extension students who meet the prerequisites may enroll in regular on-campus courses on a space-available basis. Students in Open University courses will receive extended education credit for the courses rather than regular residence credit and will be subject to extended education regulations regarding fees, refunds, grading and transcripts. Up to 36 units of continuing education credit

earned in this manner may be applied to a bachelor's degree and 13 units of graduate credit may be similarly applied if a student is admitted to an appropriate graduate program.

Students who desire to enroll in Open University classes are required to secure a permit from the Office of Extended Education and obtain approval of the instructor.

Information about availability of specific courses may be secured from the Office of Extended Education.

### **American Culture and Language Program (ACLP)**

New to the campus, ACLP is designed for the college-bound, non-English speaker who seeks an intensive English/American experience. ACLP provides international students with intensive study of the English language at beginning, intermediate and advanced levels; an introduction to American culture and lifestyles through a variety of educational field trips; necessary preparation for university-level course work; on campus residence; TOEFL preparation and academic counseling.



# THE CURRICULUM

## Schools of the University

The academic program of the University is offered through five schools—Business and Public Administration, Education, Humanities, Natural Sciences and Social and Behavioral Sciences—organized into departments, listed below:

### *Business and Public Administration*

Accounting and Finance  
Management  
Marketing, Management Science  
and Information Management  
Public Administration

### *Education*

Graduate Programs in  
Education  
Teacher Education

### *Humanities*

Art  
Communication  
English  
Foreign Languages  
Music  
Philosophy  
Theatre Arts

### *Natural Sciences*

Biology  
Chemistry  
Computer Science  
Health Science  
Mathematics  
Nursing  
Physical Education  
Physics

### *Social and Behavioral Sciences*

Anthropology  
Criminal Justice  
Economics  
Geography  
History  
Political Science  
Psychology  
Sociology

Degree programs are offered by departments, schools and interdisciplinary committees. A complete listing of the degrees available at the University may be found on Pages 20, 21 and 22.

## Course Numbering System

1–99	<i>Nondegree-applicable credit.</i>
100–299	Lower-division courses designed primarily for freshmen and sophomores. <i>Graduate credit is not allowed.</i>
300–599	Upper-division courses of junior and senior level; graduate credit may be awarded if course is accepted in a specific graduate program.
600–699	Courses for postbaccalaureate and graduate students only. <i>May not be taken by undergraduates.</i>
X800–X899	Courses offered through extension only. <i>Credit not degree applicable.</i>
IP100–IP699	Courses taken by students in the International Programs.
e300–e699	Credit earned in a continuing education program for residence credit pursuant to an external degree program.



### Full-Term Course Credits

Most courses at California State University, San Bernardino carry five quarter units of credit; some carry six units; some  $2\frac{1}{2}$  units; and a few variable credit. Course credits are indicated in the course descriptions in this Bulletin. Since each unit of credit presumes one hour of class time and two hours of preparation, a typical five-unit course would require a minimum of 15 hours per week of the student's time. For purposes of comparison with other colleges, a five quarter-hour course is equivalent to a  $3\frac{1}{3}$  semester-hour course.

In the fall term of 1989 the campus is making a major change in its curriculum with a shift from five units to four units as the typical course credit value. The number of hours of study and preparation expected per unit will remain constant as will the number of class hours per week, only the fifth unit of credit, which has traditionally been earned through out-of-class-independent study, is being dropped. The total number of units required for graduation will remain the same, but departments are adapting the content and size of majors and general education to reflect this basic change in practice.

Every effort has been made to assure the accuracy of the information in this catalog. Students are advised, however, that such information is subject to change without notice. Therefore, they should consult the appropriate instructional departments, schools, or administrative offices for current information. (Also see Changes in Rules and Policies statement on Page 462.)

The class schedule, issued prior to each quarter, lists courses to be offered during that term.

## ACCOUNTING

*Department of Accounting and Finance  
Administration Building, Room 162  
887-7676*

The courses listed below are offered in support of the bachelors, masters and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Bachelor of Science and certificate can be earned with a concentration in accounting. The details of these programs are listed under Administration (Page 134) and under Certificate programs (Page 103). Further information about these programs is available from the Department of Accounting and Finance.

### **311. CONCEPTS OF ACCOUNTING**

Development and use of basic accounting information for management analysis, decision-making, planning and control relating to operations. May not be taken for credit by students who have taken Administration 306. (5 units)

### **312. TECHNIQUES OF ACCOUNTING AND FINANCIAL MANAGEMENT**

Continuation of accounting topics as begun in Accounting 311 with emphasis on managerial and financial applications. Introduction of financial theory and techniques. *Prerequisite: Accounting 311.* (5 units)

### **340. MANAGERIAL ACCOUNTING**

Accounting information systems used by management. May not be counted toward fulfilling requirements of the accounting concentrations. *Prerequisite: Accounting 312.* (5 units)

### **344. COST ACCOUNTING FUNDAMENTALS**

Cost accounting concepts, objectives and systems. *Prerequisite: Accounting 312.* (5 units)

### **345. COST ACCOUNTING AND CONTROL**

Theories and practice relating to cost accumulation and analysis for management planning and control. *Prerequisites: Accounting 344, Management Science 304.* (5 units)

### **372. INTERMEDIATE ACCOUNTING**

In-depth study of the fundamentals of accounting and their applications to the short-term segments of the statement of financial position. Includes study of pronouncements of professional accounting organizations and the Securities and Exchange Commission. *Prerequisites: Accounting 312 and successful completion of the intermediate accounting placement test. Students may petition if they are unable to take, or if they fail, the placement test.* (5 units)

### **373. PROBLEM AREAS IN INTERMEDIATE ACCOUNTING**

Continuation of Accounting 372 with applications to the long-term segments of the statement of financial position. *Prerequisite: Accounting 372 with a grade of "C" or better.* (5 units)

### **374. REPORTING ISSUES IN INTERMEDIATE ACCOUNTING**

Continuation of Accounting 372 and 373 with applications to financial reporting issues. *Prerequisite: Accounting 373.* (5 units)

## 132 / Accounting

### 426. FEDERAL TAXATION: INDIVIDUALS

Provisions of tax law pertaining to the individual. *Prerequisite: Accounting 312.* (5 units)

### 427. FEDERAL TAXATION: CORPORATIONS AND FIDUCIARIES

Concepts and principles of federal taxation as they apply to business enterprises and fiduciaries, i.e., estates and trusts. *Prerequisite: Accounting 426.* (5 units)

### 428. ACCOUNTING FOR COMBINED CORPORATE ENTITIES

A comprehensive study of business combinations. Emphasis on accounting problems associated with mergers, acquisitions and technical problems of preparing consolidated financial statements. *Prerequisite: Accounting 373.* (5 units)

### 438. AUDITING

Function of the auditor, viewed from the perspective of professional ethics. SEC standards of reporting, auditor's legal liabilities. Techniques include internal control, sampling, standards of statement presentation, use of the computer as an auditing tool. Case studies emphasize design of audit programs, working papers and audit reports. *Prerequisite: Accounting 373.* (5 units)

### 444. PROFESSIONAL ACCOUNTING LAW

Advanced topics in contracts, commercial paper, property, legal aspects of organizations, administrative law, trusts and insurance. Emphasis is on legal problems encountered in public accounting. *Prerequisite: Management 330.* (5 units)

### 446. MICROCOMPUTERS IN ACCOUNTING

The application of minicomputers and microcomputers in accounting information systems, with emphasis on implementation for small business. *Prerequisites: Information Management 220 and Accounting 311.* (5 units)

### 569. THEORY AND PRACTICE OF INTERNAL AUDITING

Internal auditing in both the public and private sectors. Emphasis on audit organization, professional standards, internal audit philosophy, audit processes and other topics. *Prerequisite: Accounting 312.* (5 units)

### 575. INTERNSHIP IN ACCOUNTING

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite: consent of instructor and school.* (5 units)

### 590. SEMINAR IN ACCOUNTING

An intensive study of some phase of accounting to be developed by the instructor. May be repeated for credit as topics change. (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 606. ACCOUNTING FOR MANAGERIAL DECISION-MAKING

Study and application of the concepts and techniques used by management for planning and controlling business activities. *Prerequisite: Finance 503.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**690. ADVANCED TOPICS IN ACCOUNTING**

Intensive study of an advanced topic in accounting. May be repeated for credit as topics change. (5 units)

## ADMINISTRATION

*School of Business and Public Administration  
Administration Building, Room 142  
887-7531*

The School of Business and Public Administration offers a major in administration designed to prepare students for careers in business, government service, institutions and related fields.

The administration curriculum reflects the view that the concepts, philosophies and methodologies of modern administrative science, though traditionally studied in the context of business enterprise, have applicability to large-scale organizations generally. This curriculum, with its core requirements and areas of specialization, provides the student with a broad-based behavioral and quantitative understanding of the concepts of management. The managerial function and decision-making processes are studied with coverage in methods of analysis of quantitative information; judgment and appraisal of social, economic and human relations issues; and effective communication.

Areas of commonality among various public and private systems of institutional management constitute the core material of the administration major, while variations which distinguish management practices in different functional areas are subjects for optional specialization.

### Requirements for the Bachelor's Degree

*Requirements for the bachelor of arts degree:* (1) Five lower-division courses: Economics 200 and 202; Mathematics 110 or 120 or 190 (Mathematics 190 must be taken by all students with a concentration in management science); Information Management 220; and Management Science 210 or Mathematics 350; (2) eight upper-division courses: Accounting 311, 312, Finance 313, Management 302 (or Psychology 302), 330, 490, Management Science 304 and Marketing 305; and (3) a six-course concentration, chosen from the following:

Accounting: Accounting 344, 345, 372, 373 and two electives chosen from Accounting 374, 426, 427, 428, 438, 446, 569, 575, Finance 430, Public Administration 568, Mathematics 190

Business Economics: Economics 322, 335 and 372 and three electives chosen from Economics 360, 410, 430, 460, 475, 490

Finance: Accounting 340, Finance 430, 432, 435 and two electives chosen from Accounting 372, 426, 575, Management 442, Economics 410, 475, Mathematics 190

Information Management: Information Management 309, 471, 472, 473 and two electives chosen from Information Management 474, 476, 477, 478, 479, 481, Computer Science 201 or 140

Management: Management 350 or 485, 451, 455 and three additional courses chosen with advisor's approval

Management Science: Information Management 309, Management Science 360, 400, 465, Marketing 440 and one elective chosen from Accounting 340, 344, Finance 435, Information Management 471, Management Science 460, Computer Science 140, 202, 250, Economics 490

Marketing: Marketing 410, 440, 441 and three electives chosen from Marketing 411, 412, 414, 418, 443, 470, 515, 516, 575, 595

Public Administration: Public Administration 380 (or Political Science 380), 480, 562, 563 and 10 units of electives chosen from Public Administration 514, 521, 557, 564, 568, 575, 590

Small Business Management: Finance 445, Management 442, 575, Marketing 411 or 412 or 414, and two electives chosen from Accounting 426, 427, Management 455, 457, Management Science 460, Marketing 411, 412, 414 (if not taken as one of four required concentration courses listed above)

*For public administration concentration, students should substitute Economics 475 for Finance 313; Public Administration 307 for Marketing 305 and Political Science 428 for Management 490.*

The concentration electives may be chosen from the electives listed for each concentration or, with the prior approval of the department chair, the student may substitute other courses for these electives. Up to two of the concentration electives may be chosen from other academic disciplines with prior approval. Students in planning their career goals should review course offerings of other departments to determine if specific courses fit their career plans.

*Requirements for the bachelor of science degree:* (1) Five lower-division courses: Economics 200 and 202; Mathematics 110 or 120 or 190 (Mathematics 190 must be taken by all students with a concentration in management science); Information Management 220; and Management Science 210 or Mathematics 350; (2) eight upper-division courses: Accounting 311, 312, Finance 313, Management 302 (or Psychology 302), 330, 490, Management Science 304, Marketing 305; and (3) a nine-course concentration as follows:

Accounting: Accounting 344, 345, 372, 373, 374 and four additional courses from one of the following speciality areas:

Administrative Data Processing: Accounting 446; Information Management 309; Management Science 400; and one elective chosen from Accounting 438, 569, 575, Management Science 360, 465, Mathematics 190

Internal Auditing: Accounting 438, 446, 569, and one elective chosen from Accounting 426, 575, Public Administration 568, Mathematics 190

Management Accounting: Accounting 446, Finance 430, Management Science 400, and one elective chosen from Accounting 569, 575, Management Science 360, 465, Mathematics 190

Public Accounting: Accounting 426, 428, 438, and one elective chosen from Accounting 427, 444, 446, 575, Public Administration 568, Mathematics 190

Finance: Accounting 340, Finance 430, 432, 435, 445, Management 442, and three electives chosen from Accounting 372, 373, 426, 427, 446, 575, Economics 410, 475

Information Management: Information Management 309, 471, 472, 473, 474, 481 and three electives chosen from Information Management 476, 477, 478, 479, Computer Science 201 or 140

International Business: Anthropology 470, Economics 430, Finance 433, Management 405, Marketing 470; plus three language courses in the same language \* selected from: French 104, 200, 309 or German 200, 309, 312 or Spanish 202, 302, 314 or any three upper-division language courses in the same language other than Spanish, German and French; plus five units chosen from the following: Accounting 575, 595, Anthropology 460, Economics 420, 450, Finance 434, 575, 595, French 302, German 310, History 503, 556, Humanities 460, Information Management 575, 595, Management 575, 595, Management Science 575, 595, Marketing 409, 440, 575, 595, Political Science 300, 400, 500, Public Administration 575, 595, Spanish 314 (if not taken as part of the three course language requirement listed above).

Management Science: Information Management 309, 471, Management Science 360, 400, 460, 465, Marketing 440, Computer Science 140, and one elective chosen from Accounting 340, 344, Finance 435, Computer Science 202, 250, Economics 480, 490

Marketing: Marketing 410, 412, 414, 440, 441, and four electives chosen from Marketing 411, 418, 443, 470, 515, 516, 575, 595, Economics 302 or Geography 420

With the prior approval of the department chair, the student may substitute courses from other academic disciplines for these electives. Students in planning their career goals should review course offerings of other departments to determine if specific courses fit their career plans.

Transfer students who have completed a lower-division introductory sequence in accounting will have met the upper-division requirement of Accounting 311.

*Requirements for the minor in business administration:* Economics 200, Accounting 311, 312, Finance 313, Information Management 220, Management 302 (or Psychology 302), Marketing 305.

*Requirements for the minor in public administration:* Economics 200, Management 302 (or Psychology 302), Public Administration 380 (or Political Science 380), 480, 562, 563 and Economics 475.

*Departmental Honors:* Students majoring in Administration are eligible to receive departmental honors if the following conditions are met: (1) at least four courses in the concentration are completed at this university, (2) a minimum of 3.5 grade-point average for all courses satisfying the requirements for the major, (3) and one of the following: (a) a minimum of 3.8 for all courses satisfying the requirements of the concentration, (b) a grade of A in a specific Administration 595 Independent Study course, developed for honors consideration, (c) author or co-author an article accepted for publication in a leading scholarly journal in their field. The honor is awarded by the faculty of the department, and students who wish to receive this distinction should initiate the process by submitting a letter of application to the appropriate department office at the beginning of their senior year.

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\* Students may have any or all of the above listed foreign language courses waived by demonstrating *equivalent* language proficiency. Responsibility for determining this proficiency in all other languages rests with an elected faculty committee composed of two members each from the School of Business and Public Administration and the Department of Foreign Languages. Students having any of these foreign language courses waived must substitute an equal number of courses from the electives listed above.

## MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration (M.B.A.) is a broad program designed to provide flexibility for the student to prepare for a career in administration in the private sector. The major objectives are to provide the student with the tools of decision-making, an understanding of the total administrative system, a capability for understanding interrelationships, and specialized training in a functional field of administration.

The program is open to all qualified students, regardless of undergraduate major. Students who do not have a background in the area of business administration can obtain this required capability by completing designated prerequisite courses or through individual study with competence demonstrated through credit by examination.

### Admission to the M.B.A. Program

Although applications for admission to the University as a postbaccalaureate student are accepted at any time, the following schedule of dates has been established for actions by the School of Business and Public Administration in determining eligibility for classified graduate standing.

<i>Entry Quarter</i>	<i>Application Received by</i>	<i>Notification</i>
Winter, 1988	Sept. 1, 1987	Sept. 30, 1987
Spring, 1988	Dec. 1, 1987	Jan. 30, 1988
Fall, 1988	March 1, 1988	March 30, 1988
Winter, 1989	Sept. 1, 1988	Oct. 15, 1988

*Note: The GMAT should normally be taken 8-10 weeks prior to the application deadline to insure that the scores will be reported before the application deadline.*

Applicants who apply after the deadline for a particular term and meet all requirements for classified graduate standing may be admitted to conditionally classified standing. They will automatically be considered for classified graduate standing for the next regular academic term. Students in this category should contact the director of graduate studies of the School of Business and Public Administration for further information.

Students who meet all entrance requirements except course prerequisites may be admitted to the program in a conditionally classified status until those prerequisite deficiencies are removed, at which time they will be advanced to classified graduate standing in the program.

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A bachelor's degree from an accredited college or university;
2. The following combination of grade-point average (GPA) and test score on the GMAT (Graduate Management Admission Test): GMAT score plus 200 times GPA on the last 90 sequential quarter units (60 semester units) of course work (including postbaccalaureate course work) equals or exceeds 1020;
3. Submission of GMAT score by the deadline for that term; if test result is not submitted on time, admission status will be unclassified postbaccalaureate;



## 138 / Administration

4. Competence in the following prerequisite courses or their equivalents:  
Economics 305.\* Intensive Introductory Economics  
Finance 503.\* Accounting and Financial Management  
Information Management 220. Fundamentals of Business Data Processing  
Management 302 or Psychology 302. Management and Organizational Behavior  
Management 330. Legal Environment of Business  
Management 495. Expository Writing for Administration  
Management Science 504 or Mathematics 504.\* Quantitative Tools for Management  
Marketing 305. Marketing Principles  
Competence in the above prerequisite courses may be demonstrated by:
  - a. Formal completion of the course or its equivalent
  - b. Credit by examination
  - c. Waiver based on specialized work experience; must have documentation of work directly related to course to be waived; and must be approved by the school's graduate committee. (Students requesting waiver of any prerequisite courses must petition the graduate committee of the School of Business and Public Administration. Waivers are not accepted for Management 495.)
5. Academic motivation and personal qualifications demonstrated through submission of a 200–250 word statement of reasons for wishing to pursue the M.B.A. at California State University, San Bernardino and personal qualifications that will contribute to successful completion of the program.

No more than 20 quarter units of course work taken as an unclassified or conditionally classified graduate student may be applied to the program as a classified graduate student. There is no restriction on the number of quarter units of prerequisite courses that may be taken prior to advancement to classified status.

### Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, with the approval of the advisor, at least 15 quarter units of applicable graduate-level course work at the University, with a minimum grade-point average of 3.0;
3. Completed an approved graduate program plan in consultation with an M.B.A. advisor upon achieving conditionally classified or classified status.
4. Secured approval of the School of Business and Public Administration and the associate dean of graduate programs.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, consistent with the program plan (with a grade-point average of 3.0), with at least 35 units completed at the University;

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\* These three courses are intensive introductory courses taught at an accelerated pace and cover material otherwise available in two or more lower-level courses. Students who may have difficulty with accelerated courses should consider enrolling in the individual equivalent courses.

2. At least 35 quarter units of 600-level course work;
3. At least 25 quarter units of credit taken after advancement to candidacy for the degree;
4. Successful completion of the required core courses and an elective concentration as outlined in the curriculum section;
5. A grade-point average of 3.0 (B) in all course work taken after admission to conditionally classified or classified status, and grades of "C" (2.0) or better in all courses in the program;
6. Successful completion of a comprehensive examination over the student's concentration any fall or spring term after advancement to candidacy. Students will not be allowed to take the examination if GPA is below 3.0.
7. Any additional general requirements not cited above and listed on Page 94.

Concentrations are available in finance, financial services management, general management, industrial relations and personnel management, information management, marketing management, and operations management. Prior to advancement to candidacy, a student must select one of these concentrations to be tested on. A "no pass" (NP) designation will be entered on the student's transcript if he/she fails the examination. Students who do not receive a passing grade on the examination on the first attempt must petition the School of Business and Public Administration graduate committee for permission to retake the examination. The examination will be offered fall and spring quarters. Only students who are currently classified, have been advanced to candidacy and are not on probation may take the examination.

### **Requirements for the M.B.A. Degree**

*Requirements for the Master of Business Administration degree:* Accounting 606, Finance 602, Management 601, 685, Management Science 607, Marketing 605. In addition the student must complete 15 units of electives to be chosen from Administration 500–600 level courses in consultation with an advisor. At least one of the elective courses must be at the 600 level. Students may take up to two courses at the 500–600 level from related fields with the permission of the School of Business and Public Administration graduate committee. Students who wish to take up to two 300 or 400-level courses must petition this graduate committee for approval in advance; for each course approved, they will be required to enroll simultaneously in a two-unit independent study course directly related to the course selected. These independent study units cannot be applied to any graduate degree requirements.

The student should meet with an M.B.A. advisor upon achieving conditionally classified or classified status to declare an area of concentration and file an approved program plan.

Students may not take more than a total of 10 quarter units in any combination of School of Administration 575, 590, 595 and 690 courses.

Only conditionally classified and classified students (or those who have the consent of the school director of graduate studies) may enroll in 600-level courses.

The program may not include more than 10 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

MASTER OF PUBLIC ADMINISTRATION

The Master of Public Administration (M.P.A.) is a broad program designed to provide flexibility for the student to prepare for a career in administration in the public sector. The major objective is to provide the student with a generalist perspective of public administration, including tools of decision making, an understanding of the total public administrative system, and a capacity for understanding and being able to work within the public environment.

This degree is intended for graduate students and career people seeking to develop and/or strengthen academic and professional skills for the purpose of admission and/or advancement in the professional practice of public administration.

The program is open to all students, regardless of undergraduate major. Students who do not have a background or education in the area of public administration can obtain this required capability by completing designated prerequisite courses or through individual study with competency demonstrated by credit by examination.

Admission to the M.P.A. Program

Although applications for admission to the University as a postbaccalaureate student are accepted at any time, the following schedule of dates has been established for actions by the School of Business and Public Administration in determining eligibility for classified graduate standing.

<i>Entry Quarter</i>	<i>Application Received by</i>	<i>Notification</i>
Winter, 1988	Sept. 1, 1987	Sept. 30, 1987
Spring, 1988	Dec. 1, 1987	Jan. 30, 1988
Fall, 1988	March 1, 1988	March 30, 1988
Winter, 1989	Sept. 1, 1988	Oct. 15, 1988

*Note: The GRE should normally be taken 8-10 weeks prior to the application deadline to insure that the scores will be reported before the application deadline.*

Applicants who apply after the deadline for a particular term and meet all requirements for classified graduate standing may be admitted to conditionally classified standing. They will automatically be considered for classified graduate standing for the next regular academic term. Students in this category should contact the director of graduate studies of the School of Business and Public Administration for further information.

Students who meet all entrance requirements except course prerequisites may be admitted to the program in a conditionally classified status until those prerequisite deficiencies are removed, at which time they will be advanced to classified graduate standing in the program.

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A bachelor's degree from an accredited college or university;
2. The following combination of grade-point average (GPA) and test score on the GRE (Graduate Record Examination): GRE score plus 400 times GPA on the last 90 sequential quarter units (60 semester units) of course work (including postbaccalaureate course work) equals or exceeds 2100;
3. Submission of GRE score by the deadline for that term; if test result is not submitted on time admission status will be unclassified postbaccalaureate;

4. Competence in the following prerequisite courses or their equivalents:
  - a. Accounting 311. Concepts of Accounting  
or  
Finance 503.\* Accounting and Financial Management
  - b. Management 302 or Psychology 302. Management and Organizational Behavior
  - c. Information Management 220. Fundamentals of Business Data Processing
  - d. Management 495. Expository Writing for Administration
  - e. Management Science 210. Applied Business Statistics  
or  
Mathematics 350. Statistics: Hypothesis Testing and Estimation
  - f. Public Administration 575. Internship in Public Administration  
(*Note: May be waived dependent upon related work experience.*)
  - g. Economics 202. Principles of Macroeconomics  
or  
Economics 305.\* Intensive Introductory Economics

Competence in the above prerequisite courses may be demonstrated by:

  - a. Formal completion of the course or its equivalent
  - b. Credit by examination
  - c. Waiver based on specialized work experience; must have documentation of work directly related to course to be waived; and must be approved by the school's graduate committee. (Students requesting waiver of any prerequisite courses must petition the graduate committee of the School of Business and Public Administration. Waivers are not accepted for Management 495.)
5. Academic motivation and personal qualifications that will contribute to successful completion of the program demonstrated through submission of a 200–250 word statement of reasons for wishing to pursue the M.P.A. at California State University, San Bernardino.

No more than 20 quarter units of course work taken as an unclassified or conditionally classified graduate student may be applied to the program as a classified graduate student. There is no restriction on the number of quarter units of undergraduate work that may be taken prior to advancement to classified status.

### Advancement to Candidacy

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, with an advisor's approval, at least 15 quarter units of applicable graduate-level course work at the University, with a minimum grade-point average of 3.0;
3. Completed an approved graduate program plan in consultation with an M.P.A. advisor upon achieving conditionally classified or classified status.
4. Secured the approval of candidacy from the School of Business and Public Administration and the associate dean of graduate programs. (The student's

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\* These two courses are intensive introductory courses taught at an accelerated pace and cover material otherwise available in two or more lower-level courses. Students who may have difficulty with accelerated courses should consider enrolling in the individual equivalent courses.

advisor must be contacted for the completion of forms requesting advancement to candidacy.)

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, consistent with the program plan (with a grade-point average of 3.0), with at least 35 units completed at the University;
2. At least 25 quarter units of 600-level course work;
3. At least 25 quarter units of credit taken after advancement to candidacy for the degree;
4. Successful completion of the required core courses and electives as outlined in the curriculum section;
5. A grade-point average of 3.0 (B) in all course work taken after admission to conditionally classified or classified status, and grades of "C" (2.0) or better in all courses in the program;
- 6a. Successful completion of the graduate research project. The graduate research project is defined as an advanced field study in public administration including both literary and empirical research. This requirement is met by the student's enrollment in Public Administration 695 during the last quarter of work in the program and completion of the project to the satisfaction of the student's advisor.

OR

- 6b. A 600-level course elective, taken with consent of advisor, plus successful completion of an integrative comprehensive examination which may be taken any fall or spring term after advancement to candidacy. Students with GPA below 3.0 will not be permitted to sit for the examination. A "no pass" (NP) designation will be entered on the student's transcript if he/she fails the examination. Students who do not receive a passing grade may elect to: (a) repeat the examination, one additional time only, with the written approval of the School of Business and Public Administration graduate committee \* or (b) complete Public Administration 695, Graduate Research Project. The examination will be offered fall and spring quarters. *Only students who are currently classified, have been advanced to candidacy and are not on probation may take the examination.*

\* NOTE: With the written approval of the School of Business and Public Administration graduate committee, students who do not receive a passing grade after repeating the examination may complete Public Administration 695, Graduate Research Project.

7. Any additional general requirements not cited above and listed on Page 94.

### Requirements for the M.P.A. Degree

*Requirements for the Master of Public Administration degree:*

*Students choosing the graduate research project:* Management 603, Public Administration 562, 563, 564, 611, 680 and 695. In addition the student must complete 10 units of electives to be chosen from any School of Administration 500–600 level courses in consultation with an advisor. At least five of the elective units must be at the 600 level.

*Students choosing the comprehensive examination:* Public Administration 562, 563, 564, 611, 680 and completion of the comprehensive examination. In addition the student must complete 20 units of electives to be chosen from any School of Administration 500–600 level courses in consultation with an advisor. At least 15 of the elective units must be at the 600 level. Students may take up to two courses at the 500–600 level from related fields with the permission of the School of Business and Public Administration graduate committee. Students who wish to take up to two 300 or 400-level courses must petition this graduate committee for approval in advance; for each course approved they will be required to enroll simultaneously in a two-unit independent study course directly related to the course selected. These independent study units cannot be applied to any graduate degree requirements.

Only conditionally classified and classified students (or those who have the consent of the director of graduate studies) may enroll in 600-level courses.

The program may not include more than 10 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

## Certificate Programs

The School of Business and Public Administration offers certificate programs for students who are interested in course work in a specific field, but not necessarily a degree. Currently available are certificates in: accounting, financial management, general business, human resources management, information management, local government planning, marketing management and small business management. Details on the certificate programs and course requirements for each are found in the section Certificate Programs, Page 103.

### 575. INTERNSHIP IN ADMINISTRATION

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite:* consent of instructor and school. (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in Administration 595 may be applied toward graduation. *Prerequisites:* a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 2 or 5 units.)

*600-level courses are open to postbaccalaureate and graduate students only.*

**698. EXTENDED ENROLLMENT**

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of University facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

*Course descriptions for Accounting, Finance, Information Management, Management, Management Science, Marketing, and Public Administration are listed alphabetically throughout the curriculum section of the bulletin.*

## AMERICAN STUDIES

*Department of English  
Pfau Library Building, Room 242  
887-7479*

While American studies is not specifically designed to prepare students for careers, the major is an appropriate educational program for those contemplating fields in which a comprehensive understanding of American culture is useful, for example, law, library work and government. It can also be used as preparation for graduate study.

The degree program provides a basic set of requirements and also allows considerable flexibility and expression of individual interests. Students must complete a core of upper-division courses which establishes the general context for American studies. The primary purpose of the core's design is to enable the student to understand the sequential development of both American history and literature. Therefore, these requirements are chronological rather than topical in organization. Finally, both fields are synthesized in two courses, American Studies 300 and 501.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:*

*Core Courses (40 units):*

**ENGLISH 430. AMERICAN LITERATURE I**

**ENGLISH 432. AMERICAN LITERATURE II**

**ENGLISH 436. AMERICAN LITERATURE III**

Plus

Three courses from:

**HISTORY 350. THE AMERICAN COLONIES, 1607-1783**

**HISTORY 351. THE EVOLUTION OF AMERICAN DEMOCRACY, 1783-1840**

**HISTORY 354. CIVIL WAR AND RECONSTRUCTION**

**HISTORY 356. THE UNITED STATES, 1877-1917**

**HISTORY 357. THE UNITED STATES, 1917-1945**

**HISTORY 359. THE UNITED STATES SINCE 1945**



Plus

AMERICAN STUDIES 300. INTRODUCTION TO AMERICAN STUDIES

AMERICAN STUDIES 501. SEMINAR IN AMERICAN STUDIES

*Electives (20 units):*

Students are required to take additional courses from at least three departments from the following list. No more than two may be lower division.

ANTHROPOLOGY 305. NORTH AMERICAN PREHISTORY

ANTHROPOLOGY 351. INDIANS OF NORTH AMERICA

ART 311. ART OF THE UNITED STATES TO THE END OF THE 19th CENTURY

ART 413. MODERN ART OF THE UNITED STATES

ECONOMICS 370. THE AMERICAN ECONOMY

ENGLISH 140. MAJOR AMERICAN AUTHORS

ENGLISH 580. SEMINAR IN AMERICAN LITERATURE

HISTORY 200. UNITED STATES HISTORY TO 1877

HISTORY 201. UNITED STATES HISTORY, 1877 TO THE PRESENT

\*HISTORY 350. THE AMERICAN COLONIES, 1607–1783

\*HISTORY 351. THE EVOLUTION OF AMERICAN DEMOCRACY, 1783–1840

\*HISTORY 354. CIVIL WAR AND RECONSTRUCTION

\*HISTORY 356. THE UNITED STATES, 1877–1917

\*HISTORY 357. THE UNITED STATES, 1917–1945

\*HISTORY 359. THE UNITED STATES SINCE 1945

HISTORY 370A. CALIFORNIA TO 1890

HISTORY 370B. CALIFORNIA 1890–PRESENT

HISTORY 421. ECONOMIC HISTORY OF THE UNITED STATES

HISTORY 556. FOREIGN RELATIONS OF THE UNITED STATES

HISTORY 560. HISTORY OF THE AMERICAN WEST

HISTORY 565. ETHNIC MINORITIES IN AMERICAN HISTORY

MUSIC 360. MUSIC IN THE UNITED STATES

POLITICAL SCIENCE 203. AMERICAN GOVERNMENT

POLITICAL SCIENCE 314. AMERICAN POLITICAL THOUGHT

POLITICAL SCIENCE 325. AMERICAN FOREIGN POLICY

POLITICAL SCIENCE 328. JUDICIAL PROCESS

POLITICAL SCIENCE 410. AMERICAN CONSTITUTIONAL LAW

POLITICAL SCIENCE 411. THE BILL OF RIGHTS

THEATRE ARTS 461. AMERICAN DRAMA

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\* These courses may be used as electives if they have not already been used for the core.

*Honors in the Major:* Students majoring in American studies are eligible to receive honors in American studies at graduation if the following conditions are met: (1) at least one-half of the course work required by the major is completed at this university, (2) at least a 3.5 GPA in the major, both at this university and overall, (3) an overall undergraduate GPA of 3.0 or better, and (4) completion of a senior project approved in advance by the program coordinator. Students interested in receiving this recognition must initiate the process by making a formal application with the English Department secretary.

**300. INTRODUCTION TO AMERICAN STUDIES**

Concepts and definitions essential to an interdisciplinary approach to American civilization and an application of these to some aspect of American experience. (5 units)

**501. SEMINAR IN AMERICAN STUDIES**

Special topics in some aspect of American civilization suitable for the particular background of the student. May be repeated for credit as topics change. Open to American studies majors with senior standing and to other qualified students upon consent of instructor. (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## ANTHROPOLOGY

*Department of Anthropology  
Student Services Building, Room 139  
887-7281*

The study of anthropology promotes an understanding of self and all mankind by exploring man's nature at all times and in all places. In the modern world in which every society depends upon other societies, ignorance of the goals, values and ways of life of others may become a fear leading to discrimination and racism in the community or to war and oppression between nations. The challenges of desert life for the Australian Aborigine and the problems of contemporary ghetto existence are of equal interest to the anthropologist, and courses in these topics and world ethnography are offered by the Anthropology Department. Man's physical and cultural evolution, the distribution and significance of racial differences, the history and ecology of specific areas, and the role of language in culture are treated in courses in physical anthropology, archaeology and prehistory, and linguistics.

### Requirements for the Bachelor's Degree

The Anthropology major involves a two-track system, Track A (general anthropology) and Track B (museum studies). Both tracks require a minimum of 40 upper-division units in anthropology; Track B requires an additional 30 units of course work in related fields.

*Requirements for Track A:* Anthropology 511; five units from Anthropology 300-325 (archaeology/physical anthropology); five units from Anthropology 351-361, 390, 391 (culture areas); five additional units from Anthropology 300-325, 351-361, 390, 391; 15 units from Anthropology 330-340, 375, 460-595 (theory); five additional upper-division units in anthropology (or a related field as approved by an advisor).

*Requirements for Track B:* Anthropology 375; five units from Anthropology 300-325 (archaeology/physical anthropology); 10 units from Anthropology 351-361, 390, 391 (culture areas); 10 units from Anthropology 330-340, 460-511 (theory); 10 units of Anthropology 575 (internship); Accounting 311 and Public Administration 380 (cross-listed as Political Science 380); Art 201 and 203; Computer Science 120; one elective to be chosen from Public Administration 480, Art 380, Art 384, Geography 301.

Anthropology 100 and 102 or an equivalent background are ordinarily required for enrollment in upper-division anthropology courses.

*Requirements for a minor in anthropology:* Anthropology 100, 102 and 20 upper-division units selected in consultation with an advisor.

*Departmental Honors:* Students majoring in anthropology are eligible to receive honors in anthropology at graduation if the following conditions are met: 1) at least one-half of the course work required by the major is completed at this

university, 2) a grade-point average of at least 3.5 in the major, both at this university and overall, 3) an overall undergraduate grade-point average of 3.0 or better, and 4) successful completion of Anthropology 597 resulting in a thesis paper. Applications for candidacy must be made by the beginning of the senior year. Approval of candidacy and of the project and project advisor rests with the department. The project advisor and one other faculty reader from the department will have responsibility for evaluation of the completed thesis paper.

## Certificate Programs

The Department of Anthropology offers certificate programs in Museum Studies and Latin American Studies. Details concerning these programs are found on Pages 115 and 113.

### 100. INTRODUCTION TO ANTHROPOLOGY: HUMAN EVOLUTION

Man's biological and social evolution through time. (5 units)

### 102. INTRODUCTION TO ANTHROPOLOGY: CULTURE AND SOCIETY

Structure and dynamics of man's cultural experience; comparative analysis of language, religion, economic patterns and social and political organization in traditional and complex societies. (5 units)

### 300. ARCHAEOLOGY

History of archaeological research, a survey of concepts and methods for the study of prehistoric culture and a summary of major sequences in prehistory. (5 units)

### 301. OLD WORLD PREHISTORY

The prehistory and protohistory of Eurasia and Africa, emphasizing the growth of culture and the origin and spread of civilization. (5 units)

### 305. NORTH AMERICAN PREHISTORY

Prehistory of North America from earliest times to the dawn of historic contact with the Old World after 1492. (5 units)

### 306. AZTECS, MAYA AND THEIR PREDECESSORS

The origin, spread and decline of pre-Columbian civilizations in Mexico and adjacent areas. (5 units)

### 307. INCAS AND THEIR PREDECESSORS

The origin, spread and decline of pre-Columbian civilizations in Peru and adjacent areas. (5 units)

### 312. HISTORICAL ARCHAEOLOGY

Use of archaeological methods to study historic peoples. Historical and archaeological methods and their results. Focus primarily on North America from A.D. 1492 to modern times. (Also offered as History 312. Students may not receive credit for both.) (5 units)

### 315. ARCHAEOLOGY OF THE SOUTHWEST AND CALIFORNIA

The prehistoric cultures of California and the American Southwest, their origins, characteristics and relationships. (5 units)

### 320. ARCHAEOLOGICAL RESEARCH METHODS

Examines techniques and methods used to recover and analyze archaeological remains. Stresses the importance of research design and its relationship to methodology. Active participation in a field and laboratory project under the direction of the instructor is an integral part of the course. *Prerequisite: consent of instructor.*

A. Survey and Excavation Methods (5 units)

B. Post-Excavation Analysis (5 units)

## **150 / Anthropology**

### **323. NATIVE NORTH AMERICAN ART**

Art of American Indian and Eskimo peoples north of Mexico, from earliest prehistory to modern times. (Also offered as Art 323. Students may not receive credit for both.) (5 units)

### **324. PRE-COLUMBIAN ART**

Art and architecture of pre-Columbian cultures with an emphasis on Mexico and Peru. (Also offered as Art 324. Students may not receive credit for both.) (5 units)

### **325. HUMAN VARIATION AND THE CONCEPT OF RACE**

An inquiry into past and present interpretations of the significance of human physical differences. (5 units)

### **330. CROSS-CULTURAL CHILD-REARING PRACTICES**

Cross-cultural examination of child-rearing practices from the perspective of major anthropological theories of personality formation and its relationship with culture. (5 units)

### **331. ANTHROPOLOGY OF HUMAN DEVELOPMENT**

A cross-cultural perspective on human development and the processes of personality formation and cultural transmission. (5 units)

### **333. SEX AND GENDER IN CROSS-CULTURAL PERSPECTIVE**

Examination and analysis of the changing position of women in selected societies around the world, including consideration of the sexual division of labor, marriage systems, male-female relations, and systems of myth and ideology concerning gender roles. (5 units)

### **335. CROSS-CULTURAL PERSPECTIVES ON CRIME AND DEVIANCE**

Cross-cultural examination of behavior regulation in human societies. Specific topics include cultural definition of crime and deviance, conflict resolution, processes of control and the distribution of authority and power. (5 units)

### **WORLD CULTURES (Anthropology 351-361)**

Emphasis in the following courses is on major problems of current interest to the cultural anthropologist. Topics include general discussion of physical anthropology, language affiliations and culture, history of the area, the native populations, their relations with each other and to outside societies, and the effects of culture change upon them through time.

### **351. INDIANS OF NORTH AMERICA**

(5 units)

### **352. INDIANS OF THE SOUTHWEST**

(5 units)

### **354. CULTURES OF MEXICO AND CENTRAL AMERICA**

(5 units)

### **356. CULTURES OF SOUTH AMERICA**

(5 units)

### **357. AFRICAN SOCIETIES**

(5 units)

### **358. PEOPLES OF THE MIDDLE EAST**

(5 units)

### **360. PEOPLES OF AUSTRALIA**

(5 units)

**361. PEOPLES OF MICRONESIA, MELANESIA AND POLYNESIA**

(5 units)

**375. MUSEUM METHODS**

Introduction to the techniques of museum work, and to the history, theory and practice of museums. Includes curatorial methods, and the care, preservation, storage and exhibition of museum specimens. (5 units)

**390. SELECTED TOPICS IN ANTHROPOLOGY**

An anthropological examination of a selected topic. May be repeated for credit as topics change. (5 units)

**391. SELECTED TOPICS IN ANTHROPOLOGY**

An anthropological examination of a selected topic. May be repeated for credit as topics change. (2½ units)

**460. LANGUAGE AND CULTURE**

Analysis of languages stressing the relationship of language to patterns of human behavior. (5 units)

**466. ANTHROPOLOGY OF HEALTH, ILLNESS AND HEALING**

An anthropological examination of the varying cultural definitions, explanations and experiences of illness and health in a variety of cultures. Strategies which societies have developed to cope with disease and misfortune are investigated, including such things as shamanism and folk medicine. (5 units)

**470. CULTURE CHANGE AND DYNAMICS**

An examination and evaluation of the various theories that have been proposed to explain societal change using actual case study materials. (5 units)

**475. CULTURAL ECOLOGY**

An examination of theories, methods and applications of the ecological perspective in the anthropological study of human cultures, and a cross-cultural comparison of adaptations to different ecological niches. (5 units)

**480. MAGIC, RELIGION AND SCIENCE**

A comparative study of the widely varied attempts by members of human societies to order, control and make predictions about their physical and social environments. (5 units)

**485. APPLIED ANTHROPOLOGY AND SOCIAL POLICY**

Use of anthropological knowledge and methods in solving social problems in institutional, national and international settings. Includes consideration of policy-making, funding, sponsorship, establishing goals, project implementation, popular participation, ethics, evaluation and reporting. (5 units)

**490. SYSTEMS OF SOCIAL ORGANIZATION**

A comparative description and analysis of social integration in human societies. (5 units)

**492. ECONOMIC ANTHROPOLOGY**

An anthropological approach to the analysis of systems of production and exchange in nonindustrial societies. (5 units)

**493. URBAN ANTHROPOLOGY**

Utilization of ethnographic and cross-cultural materials in an examination of anthropological concepts and methods for the study of urban environments and the processes of urbanization. (5 units)

**511. METHODS AND THEORY IN ANTHROPOLOGY**

An in-depth examination of the development and current status of major methodological and theoretical orientations in anthropology. (5 units)

## 152 / Anthropology

### 575. INTERNSHIP IN ANTHROPOLOGY

Supervised work in public or private organizations (for example, museums) emphasizing practical applications of anthropological concepts. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (5 units)

### 585. FIELDWORK IN CULTURAL ANTHROPOLOGY

Supervised design, execution and analysis of an individualized ethnographic field project. *Prerequisite: consent of instructor.* (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in Anthropology 595 may be applied toward graduation. Only five of those units may be applied to the major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units.)

### 597. SENIOR HONORS PROJECT

Original research in an area of anthropological studies, culminating in a major research report receiving approval of the anthropology faculty. Enrollment limited to students whose formal application for departmental honors is approved. (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## ART

Accredited by the National Association of Schools of Art and Design

*Department of Art*

*Visual Arts Building, Room 123*

*887-7459*

The challenge for visual artists is to discover what is already there, to open up and probe what is inside and outside themselves and to find a means of giving it back to the whole world. It is this adventure which is the focus of the Department of Art.

A student may either major or minor in art, and eventually chooses one or more specific areas of concentration. The choice is governed by the student's experiences with various media, concepts and techniques, but this is not a rigid choice as new interactions among these elements are constantly being developed.

Four plans are available for students working for the Bachelor of Arts in Art and two options are available for a minor in art. The studio areas of concentration currently offered are: ceramics, crafts, graphic design, drawing, glass, jewelry and metalsmithing, painting, photography, printmaking, sculpture, and woodworking and furniture design.

In addition to their courses in art, students are urged to seek electives in related areas of creative expression. Suggested possibilities include acting, creative writing, music seminar in electronic composition.

Students in either Plan I or II interested in the history of art may use the three upper-division electives in art in that area.

Five-unit studio courses meet for eight scheduled hours per week and require an additional seven hours per week to be arranged on an individual basis. For 2½-unit courses the requirements are four scheduled hours and 3½ hours to be arranged. Field trips are required in most art history courses and several studio courses as well. Also, in many courses students are required to pay for materials used.

### Requirements for the Bachelor's Degree

*Requirements for the major (Plan I):* Art 201, 203, 204, 205, 210A and B, two upper-division courses in the history of art; two upper-division studio courses in a single area of concentration, two different courses not duplicating the area of concentration from Art 304, 335, 360, 380, 383; two different courses not duplicating the area of concentration from Art 340, 354, 368, 375, 376; and two additional upper-division electives in the department. This program is designed for students seeking a liberal education with an emphasis in art, and is recommended for those who wish to teach at the secondary school level.

*Requirements for the major (Plan II, single studio area of concentration):* Art 201, 203, 204, 205, 210A and B; three courses in the history of art, four upper-



division studio courses in a single area of concentration, and three upper-division electives in the department. This program is designed for the student with a strong professional interest in art who may wish to pursue graduate studies.

*Requirements for the major (Plan III, art history area of concentration):* Art 201, 203, 204, 205, 210A and B, 510; two upper-division studio art courses; one course chosen from each of the following five groups of art history courses: (Art 306, 308, 316), (Art 321, 327), (Art 311, 423), (Art 328, 329, 413, 424), (Art 314, 317A, B and C, 323, 324); and two additional courses chosen from the courses in the five groups listed above; and three quarters of one foreign language. Students are strongly advised to learn French and German. This program is designed for the student with a strong professional interest in art history or museum work who may wish to pursue graduate studies.

*Senior Art Project:* Art majors under Plans I, II and IV are required to register for Senior Art Project during their last quarter of residency at the University. This project will take the form of a portfolio including representative examples of studio work produced while at the University.

*Requirements for the major (Plan IV, graphic design area of concentration):* Art 201, 203, 204, 205, 210A and B; two courses in art history; Art 380 (to be taken at least twice), 382A, B, C, D, E, F and G; Art 384, 386 and 575.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in art should follow the Plan I option and must take the following courses either within this major or as electives: Art 201, 203, 204, 210A, 210B, 335, 354, 368, 375, 376 and three courses in studio art chosen from Art 304, 340, 357, 360, 369, 380, 382, 383, 384, and two courses in art history from Art 306, 308, 311, 314, 316, 317, 321, 324, 327, 328, 329, 410, 413, 423, 424, 510.

*Minor in studio art:* Art 201, 203, 204; three courses in art history; and one upper-division studio course.

*Minor in art history:* six courses in art history. In most cases, students who have completed the minor in art history and three terms of a foreign language or equivalent proficiency can easily complete the requirements of a humanities major as well.

## Certificate Program

The Department of Art offers a certificate program in Business Skills for the Artist. Details concerning this program are found on Page 105.

### 200. STUDIES IN ART

Exploration of the form and content of art. Cannot be counted toward fulfillment of requirements in the major. (5 units)

### 201. FOUNDATION STUDIO IN ART

Organization of two-dimensional phenomena with an emphasis on the interaction of color. (5 units)

### 203. FOUNDATION STUDIO IN ART

The organization of three-dimensional phenomena. Materials fee required. (5 units)

### 204. DRAWING AND LIFE DRAWING

Exploration in techniques of drawing for purposes of creative expression related to object and figure placement in space. (5 units)

**205. TOOLS AND MATERIALS**

Introduction to the safe use of tools and materials commonly used by the artist. (2 units)

*Art 201, 203, 204 and 205 represent a foundation group that can be taken in any sequence. This group or its equivalent must be completed before enrollment in upper-division studio courses—with certain exceptions as noted in course descriptions.*

**210. WESTERN ART HISTORY**

Development of western art and its historical context.

- A. Prehistoric Times through the Middle Ages (5 units)
- B. Renaissance to the Present (5 units).

**301. TOPICS IN STUDIO ART FOR NON-MAJORS**

Introduction to and experimentation in selected areas of art. Not open to art majors. May be repeated for credit. Materials fee required. (2½ units)

**302. TOPICS IN STUDIO ART FOR NON-MAJORS**

Introduction to and experimentation in selected areas of art. Not open to art majors. May be repeated for credit. (5 units)

**304. ADVANCED DRAWING AND LIFE DRAWING**

Further exploration in techniques of drawing for purposes of creative expression. A maximum of 25 units may be applied toward the major. *Prerequisite: Art 204 or consent of instructor.* (5 units)

**306. GREEK AND ROMAN ART**

Architecture, sculpture, painting and decorative arts of ancient Greece and Rome. (5 units)

**308. MEDIEVAL ART**

Art and architecture of Europe from the 8th through the 13th centuries. (5 units)

**311. ART OF THE UNITED STATES TO THE END OF THE 19TH CENTURY**

Development of American art from the Colonial period to c. 1900. Significant examples from the fields of architecture, sculpture, painting and the decorative arts. (5 units)

**314. THE ART OF INDIGENOUS PEOPLES**

Art of the native cultures of Africa, the South Pacific and North America; post-conquest and contemporary folk art in Central and South America. (5 units)

**316. ARTS OF THE ANCIENT NEAR EAST AND EGYPT**

History and development of the architecture, sculpture and decorative arts of the Ancient Near East and Egypt. (5 units)

**317. TOPICS IN FAR EASTERN ART**

History and development of styles of eastern art from pre-historic times.

- A. India (5 units)
- B. China (5 units)
- C. Japan (5 units)

**321. RENAISSANCE ART**

Art and architecture of northern and southern Europe in the 15th and 16th centuries. (5 units)

**323. NATIVE NORTH AMERICAN ART**

Art of American Indian and Eskimo peoples north of Mexico, from earliest prehistory to modern times. (Also offered as Anthropology 323. Students may not receive credit for both.) (5 units)

**324. PRE-COLUMBIAN ART**

Art and architecture of pre-Columbian cultures with an emphasis on Mexico and Peru. (Also offered as Anthropology 324. Students may not receive credit for both.) (5 units)

## **156 / Art**

### **327. BAROQUE AND ROCOCO ART**

Art and architecture of 17th and 18th century Europe. (5 units)

### **328. MEXICAN ART**

Art and architecture of Mexico from the Conquest to the present. (5 units)

### **329. CHICANO ART**

Art and culture of Mexican Americans. (5 units)

### **335. PAINTING**

Pictorial functions of formal elements of picture-making such as line, plane, color and light, pattern and edge. Materials fee required. A maximum of 25 units may be applied toward the major. *Prerequisites: Art 201 and 204.* (5 units)

### **340. SCULPTURE**

Approaches to sculpture using a variety of materials, tools, processes and concepts. A maximum of 25 units may be applied toward the major. Materials fee required. *Prerequisite: Art 203 or consent of instructor.* (5 units)

### **354. CERAMICS I**

Procedures of hand building, throwing, slip casting and glazing as practiced by the studio potter and the ceramic sculptor. Materials fee required. (5 units)

### **357. ADVANCED CERAMICS**

Advanced work in ceramics. A maximum of 20 units may be applied toward the major. Materials fee required. *Prerequisites: Art 203 and 354 or consent of instructor.* (5 units)

### **360. PRINTMAKING**

Creative research into studio techniques in relief, intaglio, collographic, planographic and stencil processes. A maximum of 25 units may be applied toward the major. Materials fee required. *Prerequisites: Art 201 and 204.* (5 units)

### **368. WOODWORKING AND FURNITURE DESIGN I**

Explorations in the use of hand and power tools in woodworking. (5 units)

### **369. ADVANCED WOODWORKING AND FURNITURE DESIGN**

Advanced work in woodworking and furniture design. A maximum of 20 units may be applied toward the major. *Prerequisite: Art 368.* (5 units)

### **375. GLASS**

Techniques of blown, stained, molded, neon and flame glass used in the formation of functional and sculptural objects. A maximum of 25 units may be applied toward the major. Materials fee required. *Prerequisite: Art 203 or consent of instructor.* (5 units)

### **376. JEWELRY AND METALSMITHING**

Design and fabrication of jewelry and hollow ware including the techniques of bending, forming, soldering and casting. A maximum of 25 units may be applied toward the major. Materials fee required. *Prerequisite: Art 203 or consent of instructor.* (5 units)

### **380. COMMUNICATIONS DESIGN**

Design concepts as applied to visual communication, including graphic design and layout, packaging, corporate identity, symbology, display and environmental graphics. A maximum of 25 units may be applied toward the degree. Materials fee required. *Prerequisites: Art 201 and 203 or consent of instructor.* (5 units)

**382. COMMUNICATIONS SPECIALTIES**

Design of labels, structure, display and production of three-dimensional containers for industrial and commercial usage, and consumer consumption. Course may be repeated as topics change. Materials fee required. *Prerequisite: Art 380.*

- A. Display and Tradeshow Design (2½ units)
- B. Illustration (2½ units)
- C. Typography/Production (2½ units)
- D. Publication Design (2½ units)
- E. Mark and Logo Design (2½ units)
- F. Packaging Design (2½ units)
- G. Seminar in Communications Design (2½ units)

**383. PHOTOGRAPHY I**

Creative research in the study of photography, to include content, design, technique and individual problems. Materials fee required. (5 units)

**384. ADVANCED PHOTOGRAPHY**

Advanced work in photography. A maximum of 20 units may be applied toward the major. Materials fee required. *Prerequisite: Art 383 or consent of instructor.* (5 units)

**386. AUDIO AND VIDEO MEDIA**

Introduction to the theories and techniques governing the use of video, photographic and audio-recording equipment in graphic production. (Also offered as Communication 386. Students may not receive credit for both.) (4 units)

**395. ART IN THE CLASSROOM**

Providing art experiences through the use of varied art media in the elementary school. May not be counted toward fulfilling requirements of courses in the art major. (5 units)

**410. STUDIES IN ART HISTORY**

Study in a selected period in the history of art. May be repeated for credit. (5 units)

**413. MODERN ART OF THE UNITED STATES**

Art in America in the 20th century. (5 units)

**423. NINETEENTH CENTURY EUROPEAN ART**

Art of 19th-century Europe; from neo-Classicism through post-Impressionism. (5 units)

**424. MODERN EUROPEAN ART**

Twentieth-century art and architecture in Europe from 1900 to the present. (5 units)

**483. STUDIES IN STUDIO ART**

Study and experimentation in a selected area of art. May be repeated for credit as topics change. Materials fee required. *Prerequisites: Art 201, 203 and 204 or consent of instructor.* (5 units)

**484. STUDIES IN STUDIO ART**

Study and experimentation in a selected area of art. May be repeated for credit as topics change. Materials fee required. *Prerequisites: Art 201, 203 and 204 or consent of instructor.* (2½ units)

**510. COLLOQUIUM IN ART**

Inquiry into problems of art history, aesthetics and art criticism. May be repeated for credit. *Prerequisite: consent of instructor.* (5 units)

**575. COMMUNICATIONS DESIGN INTERNSHIP**

Supervised work in a professional design office or for a public or private organization. May be repeated once for credit. *Prerequisite: consent of instructor.* (5 units)

**595. INDEPENDENT STUDY**

Studio and/or library research conducted under the direction of a faculty member. A total of ten units of Art 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1–6 units).

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)



## **BILINGUAL/CROSS-CULTURAL STUDIES**

The courses listed below are intended to be used by students who wish to complete simultaneously the B.A. in Liberal Studies (see Page 313) and the requirements for the multiple subject credential with the bilingual/cross-cultural option (see Page 206). For further information concerning credential programs, contact the School of Education.

The University offers a certificate in bilingual/cross-cultural studies: Spanish/English. For further information, see Page 104.

**ANTHROPOLOGY 354. CULTURES OF MEXICO AND CENTRAL AMERICA**

**ANTHROPOLOGY 460. LANGUAGE AND CULTURE**

**ART 328. MEXICAN ART**

**ART 329. CHICANO ART**

**EDUCATION 536. TEACHING THE CULTURALLY DIFFERENT**

**FOREIGN LANGUAGES 450. (SPANISH 450.) LITERATURE IN TRANSLATION:  
MEXICAN**

**HISTORY 390. HISTORY OF MEXICO**

**HISTORY 391. CHICANO HISTORY**

**HISTORY 565. ETHNIC MINORITIES IN AMERICAN HISTORY**

**HISTORY 566. ETHNIC MINORITIES IN THE AMERICAN SOUTHWEST: PAST AND  
PRESENT**

**HUMANITIES 460. CULTURE STUDIES: MEXICO**

**INTERDISCIPLINARY STUDIES 460. ASPECTS OF CHICANO CULTURE**

**MUSIC 351. MEXICAN AND CHICANO MUSIC**

**POLITICAL SCIENCE 351. THE CHICANO AND POLITICS**

**PSYCHOLOGY 347. PSYCHOLOGICAL DEVELOPMENT OF THE CHICANO**

**SOCIOLOGY 342. THE CHICANO FAMILY**

**SOCIOLOGY 410. RACIAL AND CULTURAL MINORITIES**

**SPANISH 202. GRAMMAR AND COMPOSITION**

**SPANISH 204. INTRODUCTION TO LITERARY TEXTS**

**SPANISH 302. THEORY AND PRACTICE IN COMPOSITION**

**SPANISH 440. MEXICAN LITERATURE**



## BIOLOGY

*Department of Biology  
Biological Sciences Building, Room 217  
887-7353*

The major in biology emphasizes the relationship between structure and function in living systems and the concept that biological processes can be studied at different levels of organization. The program provides a balanced blend of traditional and modern biology, incorporating the important generalizations of traditional biology and the more recent advances essential to the successful biologist or medical practitioner of the future.

The excellent facilities and equipment of the department are readily available to all students enrolled in biology courses. Qualified seniors are encouraged to engage in research projects through the independent study program.

Many career opportunities are available to the student majoring in biology. The undergraduate program provides an excellent background for further work in medicine, dentistry, veterinary medicine, medical technology and graduate programs; and it also can serve for direct entry into public school teaching and a variety of positions in industrial, research and governmental organizations.

Field trips are a normal and required part of a number of courses.

Preprofessional students of medicine, dentistry or other science-based fields seeking a major in biology should refer to Page 87 of this bulletin and consult with a departmental advisor.

### Requirements for the Bachelor's Degrees

*Requirements for the bachelor of arts degree:* Mathematics 120 or 200 or 350; Physics 121, 225, 122 and 226 or 221, 225, 222 and 226; Chemistry 215-216 and 221-222-223 or 321-322-323; Biology 200-201-202; and six upper-division courses in biology (which may include Chemistry 436-437) totaling no less than 30 units.

*Requirements for the bachelor of science degree:* Mathematics 120 or 200 or 350; Physics 121, 225, 122 and 226 or 221, 225, 222 and 226; Chemistry 215-216-217 and 221-222-223 or 321-322-323; Biology 200-201-202; four courses selected from Biology 400 or 423, 424 or 431, 440 or 476, 450 or 553; and six upper-division elective courses in biology (which may include Chemistry 436-437) totaling no less than 30 units.

All courses leading to either a B.A. or a B.S. are to be selected in consultation with a departmental advisor.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in life science must complete the following:

1. Students pursuing the Bachelor of Arts degree in Biology must complete the requirements for the major and elect their upper-division six-course biology distribution in the following way; one course from Biology 319, 352A, 352B, 360 or 380; one course from Biology 331, 335, 342, 371 or 334; one course

from Biology 346, 370 or 522; one course from Biology 314, 315, 316 or 440; one course from Biology 400, 424, 428 or 431; and Biology 450. A course may not count in two categories and a minimum of three laboratory courses must be selected.

2. Students pursuing the Bachelor of Science degree in Biology must complete the requirements for the major and use their upper-division electives to complete a course from each of the following areas (if not otherwise taken in the core requirements for the major): one course from Biology 319, 353, 354, 360 or 380; one course from Biology 331, 335, 342, 371 or 334; one course from Biology 346, 370 or 522; one course from Biology 314, 315, 316 or 440; one course from Biology 400, 424, 428 or 431; and Biology 450. A course may not count in more than one of the above six categories.

For information about the teacher education program contact the School of Education.

*Requirements for a minor in biology:* Biology 200-201-202 and three additional upper-division courses in biology totaling no less than 15 units; Chemistry 215-216; one of the following: Physics 100, 121 and 225, 221 and 225; Mathematics 120, 200, 350.

*Departmental Honors:* Candidacy for departmental honors in biology is voluntary. To be eligible a student must fulfill the following requirements: achieve a minimum GPA of 3.5 for all courses satisfying the requirements for the major (as defined above), take at least five courses in the major at the University, complete satisfactorily Biology 595 and complete satisfactorily the departmental comprehensive examination. Application for candidacy must be made at the beginning of the senior year. Approval of candidacy and of the project and project advisor rests with the department. The project advisor will have sole responsibility for acceptance of the completed project.

The department may grant honors to exceptional students who fail to meet the above requirements, but who have in the judgment of the department brought distinction upon themselves and the department in some other appropriate manner.

## MASTER OF SCIENCE IN BIOLOGY

The Master of Science in Biology is designed to provide the flexibility required to develop specific course programs and acceptable thesis research proposals based upon the individual graduate student's interests and background. The general goal of the program is to provide the student with opportunity for improvement of competence, development of the ability to continue self-directed study, and development of intellectual responsibility in preparation for professional leadership in biology.

While the graduate program in biology provides training in various biological concentrations, the unique environmental setting of the San Bernardino campus allows special emphasis on desert and mountain ecological studies.

### Admission to the M.S. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college;

2. Completion of an undergraduate major in biology or associated fields (e.g. microbiology, botany, zoology, chemistry);
3. Adequate preparation in chemistry at the college level, including courses in organic chemistry; quantitative analysis is recommended;
4. Two full-term courses in physics at the college level;
5. A minimum of one full-term course in mathematics at the college level.

Students who do not meet these criteria may be admitted as conditionally classified graduate students and will remain in this status until deficiencies have been removed.

### **Advancement to Candidacy**

In order to be advanced to candidacy, the student must have:

1. Achieved classified status;
2. Been accepted by a major advisor from the Department of Biology, if a thesis project is selected;
3. Completed at least 15 quarter units of applicable course work as a graduate student at this University, with the approval of the Department of Biology graduate committee, and with a minimum grade-point average of 3.0;
4. Gained a recommendation for advancement to candidacy from the Department of Biology graduate committee;
5. Submitted a formal program of graduate course work prepared in consultation with and approved by the Department of Biology graduate committee and/or the major advisor;
6. Gained final approval of the program and of the candidacy itself by the associate dean of graduate programs.

### **Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable graduate-level work included in the formal program, with no less than 32 completed in residence at this University and with at least 24 units gained from 600-level courses in biology.
2. Advancement to candidacy for the degree and approval of the specific program of courses.
3. A grade-point average of 3.0 (B) in all graduate course work fulfilling the requirements of the Master of Science in Biology and grades of "C" (2.0) or better in all courses in the program.
4. Completion of a final oral examination concluded by acceptance of the thesis; or satisfactory completion of the alternative.
5. Any additional general requirements not cited above and listed on Page 94.

### **Department Graduate Committee and Major Advisor**

The Department of Biology graduate committee consists of three or more members. This committee has general supervision over the work of students progressing toward the master's degree, and will determine whether applicants are adequately prepared for graduate study in biology.

Each new graduate student should consult with the chair of the department graduate committee for advice in selection of the appropriate graduate program (thesis or alternative). Students choosing to complete a thesis are responsible for selecting their major advisor and, in turn, must be accepted by the major advisor.

The major advisor in consultation with the student will develop a program of specific courses and an acceptable thesis research proposal based upon the student's interests and preparation. The major advisor will direct the thesis research. The program of courses and the thesis topic, as well as any subsequent modifications of these, are subject to approval by the department graduate committee and, in turn, the associate dean of graduate programs.

Students following the alternative program should consult directly with the Department of Biology graduate committee.

### **Thesis and Final Oral Examination**

Students electing this plan must conduct an original research study and from these efforts write a thesis acceptable to the major advisor, the department graduate committee and the associate dean of graduate programs. The student should consult the Department of Biology for details on preparing the thesis manuscript.

A final oral examination consisting primarily of discussion of the thesis and thesis research is required. The official examiners are the major advisor, the department graduate committee, and a representative from outside the Department of Biology chosen by the associate dean of graduate programs. Successful completion of the final oral examination includes acceptance of the thesis by the examiners.

Available research areas include:

- Developmental biology
- Ecology
- Genetics
- Molecular biology
- Parasitology
- Physiology
- Population biology

For possible combinations of areas or other areas consult with the Department of Biology.

### **Nonthesis or Alternative to the Thesis**

Students pursuing this alternative are required to satisfactorily complete six advanced topics courses selected from four areas (molecular or physiology, plant biology or ecology or parasitology, evolution or biosystematics, and genetics or development) with at least one course selected from each of the four areas. In addition, students must pass the Biology Department comprehensive examination. This requirement serves to provide breadth of background at an advanced level for the student not electing a thesis. Satisfactory completion of the alternative program must be certified by the Department of Biology graduate committee before graduation from the degree program is possible.

### **Requirements for the M.S. Degree, Plan I (Thesis)**

A student must complete successfully no less than 24 units at the 600 level, including nine units of thesis research (Biology 699A,B,C), one seminar (Biology 690) and five courses selected from Biology 600 or 624, 620 or 670 or 675, 680 or 664, and 650 or 660, with at least one course from each area. Remaining credit-hour requirements are to be fulfilled by successful completion of biology or re-

## 166 / Biology

lated courses at the 600, 500 and 400-levels selected as part of the candidate's official program.

### Requirements for the M.S. Degree, Plan II (Nonthesis or Alternative to Thesis)

As an alternative to the thesis, a student must demonstrate acceptable proficiency in no less than 25 units at the 600-level, including two seminars and eight courses selected from Biology 600 or 624, 620 or 670 or 675, 680 or 664, and 650 or 660, with at least one course from each area, and the Department of Biology comprehensive examination. See the Department of Biology for details. Upon completion of all course work, the student must attend the Biology Department colloquium held twice a quarter until the comprehensive examination has been passed and the student certified for graduation. Remaining credit-hour requirements are to be fulfilled by successful completion of biology or related courses at the 600, 500, and 400-levels selected as part of the candidate's official program.

#### 100. TOPICS IN BIOLOGY

Major generalizations of biology with particular emphasis on man's interaction with the biosphere. Lecture and three hours of laboratory. (5 units)

#### 200. BIOLOGY OF THE CELL

Cellular structure and function. Four hours of lecture and three hours of laboratory. (5 units)

#### 201. BIOLOGY OF ORGANISMS

Structural and functional attributes of organisms. Four hours of lecture and three hours of laboratory. *Prerequisite: Biology 200.* (5 units)

#### 202. BIOLOGY OF POPULATIONS

Introduction to the principles of ecology, heredity and evolution. Lecture and three hours of laboratory. (5 units)

#### 220. PRINCIPLES OF MICROBIOLOGY

Morphology, physiology and classification of bacteria, yeasts, molds, rickettsiae and viruses. Bacteriology of air, soil and dairy products; rudiments of infection and immunity. Laboratory training in culture preparation, sterilization, inoculation and identification. Lecture and six hours of laboratory. *Prerequisite: one lower-division biology course.* (6 units)

#### 222. HUMAN ANATOMY AND PHYSIOLOGY

Survey of structure and function of human organ systems with emphasis on homeostasis. May not be counted toward fulfilling requirements in the biology major. Lecture and three hours of laboratory. *Prerequisite: one lower-division biology course.* (5 units)

#### 223. HUMAN PHYSIOLOGY AND ANATOMY I

Comprehensive study of human form and function including living chemistry, cells, tissues, skeletal, muscular and nervous systems. Four hours of lecture and three hours of laboratory. *Prerequisite: one lower-division biology course.* (5 units)

#### 224. HUMAN PHYSIOLOGY AND ANATOMY II

Continuation of Biology 223 with coverage of special senses, digestive, respiratory, cardiovascular, urinary, endocrine and reproductive systems. Four hours of lecture and three hours of laboratory. *Prerequisite: Biology 223.* (5 units)

**311. HUMAN PHYSIOLOGY**

Physiology of human organ systems at the cellular and molecular level. Four hours of lecture. May not be counted for credit in the biology major by students already completing Biology 424. *Prerequisite: Biology 201 or Biology 222.* Recommended: one year of chemistry. (5 units)

**312. MICROTECHNIQUES**

Preparative and histochemical study of cells, tissues and the organism including whole mounts, squash, sectioning and staining methods. Two hours of lecture and three hours of laboratory. *Prerequisites: Biology 200, 201, 202 and Chemistry 216.* (3 units)

**314. BIOLOGY OF HUMAN SEXUALITY**

Biological aspects of human anatomy, physiology and behavior as related to sexual reproduction including discussion of fertility, pregnancy, childbirth and birth control; consideration also given to homosexuality, venereal disease, sexual intercourse and response. Lecture only. *Prerequisite: one lower-division biology course.* (5 units)

**315. INTRODUCTION TO HUMAN EMBRYOLOGY**

An introductory course in human development. Emphasis on normal developmental sequences from fertilization to birth and on hereditary and drug or chemical factors which can modify these normal sequences. Four hours of lecture. *Prerequisite: Biology 100 or 201 or 202.* (5 units)

**316. HUMAN GENETICS**

Principles of heredity as they apply to humans. Lecture only. May not be counted toward fulfilling requirements in the biology major by students already receiving credit for Biology 423. *Prerequisite: one lower-division biology course.* (5 units)

**319. LOCAL FLORA**

Identification of the flora and ecological communities of southern California with a consideration of taxonomic principles. Field collections, four hours of lecture and six hours of laboratory. *Prerequisite: one lower-division biology course.* (6 units)

**321. EVOLUTION**

Darwin, views of evolution and their implications in various disciplines. Four hours of lecture. *Prerequisite: one lower-division biology course.* (5 units)

**331. BIOLOGY OF THE INVERTEBRATES**

The evolution and ecology of the invertebrate phyla with emphasis on major phylogenetic changes. Four hours of lecture, field collections and six hours of laboratory. *Prerequisite: Biology 100 or 201 or 202.* (6 units)

**334. MEDICAL AND ECONOMIC ENTOMOLOGY**

Survey of medically and economically important arthropods. Four hours of lecture. Not available for credit in the biology major for students already receiving credit for Biology 335. *Prerequisites: Biology 200, 201 and 202, or consent of instructor.* (5 units)

**335. ENTOMOLOGY**

A study of the evolution, anatomy, classification and habits of insects and related arthropods. Four hours of lecture, field collections and six hours of laboratory. *Prerequisite: Biology 100 or 201 or 202.* (6 units)

**342. BIOLOGY OF THE CHORDATES**

Structural, physiological and ecological changes in the evolution of the chordate groups with an emphasis on comparative vertebrate anatomy. Four hours of lecture and six hours of laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

**346. NATURE AND EVOLUTION OF ANIMAL BEHAVIOR**

Interrelationship between the ecology and behavior of animals, with particular reference to evolutionary aspects. *Prerequisite: Biology 100 or 201 or 202.* (5 units)

## 168 / Biology

### 353. BIOLOGY OF LOWER PLANTS

Evolution, morphology and physiology of lower plants. Four hours of lecture and six hours of laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

### 354. BIOLOGY OF HIGHER PLANTS

Comparative morphology of ferns, fern allies and seed plants, with a consideration of their phylogenetic relationships. Four hours of lecture and six hours of laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

### 360. FUNCTIONAL ANATOMY OF PLANTS

Tissues and tissue aggregates in vascular plants, stressing the functional attributes of structure, with laboratory study of living and preserved plant material and prepared slides. Lecture and six hours of laboratory. *Prerequisite: Biology 201.* (6 units)

### 370. SYMBIOSIS

The nature and principles of biological interactions with a survey of various types of relationships such as commensalism, mutualism, parasitism and competition. Lecture only. *Prerequisite: Biology 201.* (5 units)

### 371. PARASITOLOGY

Study of the nature and principles of parasitism with a survey of various groups of animal parasites. Four hours of lecture and six hours of laboratory. *Prerequisites: Biology 200, 201 and 202.* (6 units)

### 374. HEMATOLOGY

Basic principles and current laboratory procedures used in the study of blood. Morphological and physiological characteristics of normal and abnormal blood tissues. Basic laboratory procedures in the study of blood. Four hours of lecture and three hours of laboratory. *Prerequisites: Biology 200, 201 and 202.* (5 units)

### 376. ENDOCRINOLOGY

Endocrine systems with emphasis on mechanisms for regulating the biosynthesis, secretion, transport and actions of hormones. Four hours of lecture. *Prerequisites: Biology 200, 201 and 202.* Recommended: organic chemistry and vertebrate physiology. (5 units)

### 380. MEDICAL AND ECONOMIC BOTANY

Survey of medically and economically important plant species and families. Includes plants harmful and beneficial to humans with emphasis on vascular species. Four hours of lecture. *Prerequisites: Biology 200, 201 and 202.* Recommended: Chemistry 217. (5 units)

### 396. DIRECTED STUDY

Reading and library research in an area of biology conducted under the direction of a faculty member in the department of biology. No more than two units may be applied toward a biology elective for graduation. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application form filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1–2 units)

### 400. MOLECULAR BIOLOGY

A basic course in biological chemistry with emphasis on gene function. May not be counted for credit by students who have received credit for Chemistry 437. Lecture and six hours of laboratory. *Prerequisites: Biology 200-201-202 and Chemistry 223 or 323.* (6 units)

### 423. GENETICS

Principles of classical and modern genetics including an introduction to population genetics. Lecture and six hours of laboratory. *Prerequisite: one year of biology, including Biology 202 or equivalent.* (6 units)

**424. COMPARATIVE ANIMAL PHYSIOLOGY**

A comparative analysis of the physiological mechanisms and processes of organisms with emphasis on trends of evolutionary specialization. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201, 202 and Chemistry 223 or 323. Recommended: Biology 331 or 342. (6 units)

**428. CONCEPTS OF MOLECULAR GENETICS**

Chemical nature of genes, their replication and mode of action at the molecular level. Transfer and expression of genetic information; interaction and hybridization of genes, molecular mutagens and molecular evolution. *Prerequisites:* general genetics (Biology 423) and organic chemistry (Chemistry 323). (5 units)

**431. COMPARATIVE PLANT PHYSIOLOGY**

Analysis of physiological activity at the various levels of cells, tissues, organs and organisms. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201, 202 and Chemistry 223 or 323. Recommended: Biology 360. (6 units)

**440. PRINCIPLES OF DEVELOPMENT**

Comparative analysis of patterns and processes of development of organisms, with emphasis on the role of genetic and biochemical mechanisms. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201, 202 and Chemistry 223 or 323. (6 units)

**450. ECOLOGY**

Analysis of the interrelationships of organisms and their physical and biotic environment with a consideration of the role of the environment in natural selection. Four hours of lecture and six hours of laboratory/field studies. *Prerequisites:* Biology 200, 201, 202 and a field course in biology. (6 units)

**455. MARINE BIOLOGY AND OCEANOGRAPHY**

Survey of the marine fauna and flora, including algae, invertebrates, fishes, birds and mammals and selected topics in physical oceanography. Four hours of lecture and six hours of lab or field excursion. (6 units)

**460. BIOGEOGRAPHY**

Investigation of plants and animals according to their environmental and spatial relationships. Biogeographic theory and regions will be examined; agents of biotic distribution and human influence will be noted. Lecture only. (Also offered as Geography 460. Students may not receive credit for both.) *Prerequisites:* upper-division standing, Geography 103 or Earth Science 101, and Biology 201 or 202; or consent of instructor. (5 units)

**464. PLANT TAXONOMY**

Taxonomic characteristics of vascular seed plants, with laboratory and field investigation of illustrative living and preserved plant material. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201, 202 and 354. (6 units)

**470. MICROORGANISMS**

Study of microbial organisms: their cell structure and function, metabolism, genetics and ecology with an introduction to pathogenesis. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201 and 202. (6 units)

**471. MYCOLOGY**

Morphology and classification of fungi with emphasis on fungal physiology, genetics, pathogenesis and reproduction; brief introduction to industrial mycology. Four hours of lecture and six hours of laboratory. *Prerequisites:* Biology 200, 201 and 202. (6 units)

**472. VIROLOGY**

Examination of the structure, genetics and modes of replication of viruses, viroids and other related sub-cellular entities; their implications in medicine and agriculture, and their use in scientific research. Four hours of lecture. *Prerequisites:* Biology 200, 201 and 202. (5 units)



**476. IMMUNOBIOLOGY**

Antigens, antibodies and the immune response. Lecture and six hours of laboratory. *Prerequisites: Biology 200-201-202 and Chemistry 223 or 323.* Recommended: vertebrate physiology and molecular biology. (6 units)

**479. MEDICAL BACTERIOLOGY**

Study of bacterial pathogens with emphasis on mechanisms of pathogenicity, diagnosis, chemotherapy and host interaction. Lecture and six hours of laboratory. *Prerequisites: Biology 220 and Biology 400.* (6 units)

**490. SPECIAL TOPICS**

Group study of a selected topic, the title to be specified in advance. May be repeated for credit as topics change. *Prerequisite: 15 units of upper-division biology.*

- A. (1 unit)
- B. (2 units)
- C. (3 units)

**491. SPECIAL LABORATORY TOPICS**

Group laboratory study of a selected topic, the title to be specified in advance. May be repeated for credit as topics change. *Prerequisite: 15 units of upper-division biology.*

- A. (1 unit)
- B. (2 units)
- C. (3 units)

**522. THE GENETICS AND ECOLOGY OF POPULATIONS**

Genetic and ecological mechanisms influencing the development, maintenance and evolution of populations. Lecture only. *Prerequisite: Biology 423.* Recommended: Biology 450. (5 units)

**553. PHYSICAL AND CHEMICAL LIMNOLOGY**

Physical and chemical characteristics of lakes and streams as related to activities of the natural biota, environmental factors and the geological substratum. Laboratory work primarily related to the standard chemical analysis of natural waters and studies of various physical parameters. Two hours of lecture and six hours of laboratory. *Prerequisites: Biology 200, 201, 202, Biology 450 and Chemistry 217.* Recommended: a field course in ecology. (4 units)

**554. BIOLOGY OF AQUATIC POPULATIONS**

Dynamics of aquatic populations, with consideration of the influence of environmental factors on their activities. Laboratory dealing with construction of quantitative models applicable to the study of aquatic populations. Two hours of lecture and three hours of laboratory. *Prerequisite: Biology 450.* Recommended: courses in aquatic plant biology, invertebrate biology and vertebrate biology. (3 units)

**575. INTERNSHIP IN BIOLOGY**

Supervised work and study in work situations involving biological research and technical skills. May be applied only once toward degree electives in biology programs. May be repeated twice for free elective credit. Graded credit/no credit. *Prerequisite: department approval in the quarter prior to registration.* (2 units)

**595. INDEPENDENT STUDY**

Laboratory and/or library research in selected areas in biology conducted under the direction of a faculty member. A total of six units in Biology 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* Consent must be obtained no later than the advisement period preceding the quarter of enrollment. All students will be required to attend the Biology Department colloquium called by the department chair twice a quarter until their projects are completed. (Credit to be arranged: 1 to 6 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**600. ADVANCED TOPICS IN MOLECULAR BIOLOGY**

An in-depth consideration of selected research areas in molecular biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**620. ADVANCED TOPICS IN PLANT BIOLOGY**

An in-depth consideration of selected areas of current study in plant biology. May be repeated for credit as topics change. (2½ units)

**624. ADVANCED TOPICS IN PHYSIOLOGY**

An in-depth consideration of selected research areas in physiology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**650. ADVANCED TOPICS IN GENETICS**

An in-depth consideration of selected research areas in genetics. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**660. ADVANCED TOPICS IN DEVELOPMENT**

An in-depth consideration of selected research areas in developmental biology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**664. BIOSYSTEMATICS**

Fundamental concepts of classification systems, biometric and experimental taxonomic procedures, nomenclature and systematic literature; both plant and animal materials used. Lecture only. *Prerequisites: Biology 423 and one taxonomy-based course; e.g. Biology 319, 331, 335, 342, 353, 354 or 464.* Recommended: Mathematics 350. (2½ units)

**670. ADVANCED TOPICS IN ECOLOGY**

Literature survey of specific topics related to community or ecosystem dynamics. May be repeated for credit as topics change. *Prerequisite: Biology 450 or equivalent.* (2½ units)

**675. ADVANCED TOPICS IN PARASITOLOGY**

An in-depth consideration of selected research areas in parasitology. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**676. ADVANCED TOPICS IN MICROBIOLOGY AND IMMUNOLOGY**

An in-depth examination of current research in selected areas of immunobiology and immunology of microbial infections. May be repeated as topics change. *Prerequisites: Biology 220 and 476.* (2½ units)

**680. ADVANCED TOPICS IN EVOLUTION**

Topics of current research interest in plant or animal evolution. May be repeated for credit as topics change. (2½ units)

**690. GRADUATE SEMINAR IN BIOLOGY**

Selected topics and reviews of current investigations in the fields of biology. Required of all graduate students in biology. May be repeated for credit as topics change. (2½ units)

## 172 / Biology

### 698. EXTENDED ENROLLMENT

Independent study leading to completion of requirements (other than course work) for the master of science degree. Students enrolled in this course have full use of University facilities. To retain their classified standing in the master's program, students enrolled in this course must attend the Biology Department colloquium called by the department chair twice a quarter until their projects are completed and their theses accepted. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

### 699. THESIS RESEARCH AND THESIS

Independent graduate research conducted under guidance of the major advisor and resulting in a thesis. May be repeated for a maximum of 9 units. To retain their classified standing in the master's program, students enrolled in this course must attend the Biology Department colloquium called by the department chair twice a quarter until their projects are completed and their theses accepted. *Prerequisite: advancement to candidacy.*

A. (3 units)

B. (3 units)

C. (3 units)

## CHEMISTRY

Accredited by the American Chemical Society

*Department of Chemistry*

*Physical Sciences Building, Room 319*

*887-7344*

The Department of Chemistry provides: (1) undergraduate training in chemistry for students planning professional careers in chemistry and allied professions such as medicine, dentistry, pharmacy, health sciences and veterinary medicine and for those contemplating graduate work for advanced degrees; (2) appropriate courses for the teacher credential program; (3) fundamental chemical science courses required by students majoring in related fields such as physics and biology; and (4) an understanding of the achievements and contributions of chemistry as a science.

The Bachelor of Science in Chemistry satisfies the requirements for certification by the American Chemical Society.

Preprofessional students of medicine, dentistry or other science-based fields seeking a major in chemistry should refer to Page 87 of this bulletin and consult with a departmental advisor.

Students interested in fields such as environmental science, environmental law, business, and clinical chemistry can pursue these by following the minimum requirements of the major and appropriate electives.

### Requirements for the Bachelor's Degrees

*Requirements for the bachelor of arts degree:* Chemistry 215-216-217, 321-322-323, 455-456, 475, 590 and five additional upper-division units in chemistry; Physics 121, 225, 122, 226 or Physics 221, 225, 222, 226; and Mathematics 200-201-202.

*Requirements for the bachelor of science degree:* Chemistry 215-216-217, 321-322-323, 455-456, 475, 545, 576, 590 and nine additional upper-division units in chemistry (an upper-division course in mathematics or physics selected in consultation with the departmental advisor may also be included); Physics 221, 225, 222, 226 and 223; Mathematics 200-201-202-203 and one applied mathematics course selected in consultation with the departmental advisor; foreign language (two terms of German or Russian or equivalent proficiency). A comprehensive examination covering the major field of study will be required in the senior year.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in physical science must either as part of the requirements for the Bachelor of Arts or Bachelor of Science major in chemistry or as electives in addition to the requirements for the degree take Physics 221, 225, 222, 226 and 223; Earth Science 101 and 301 or 310; and Natural Sciences 100 and 300 or 310 or 312. In addition, certain prerequisites and professional education

## 174 / Chemistry

courses are required. For information about admission to the teacher education program, the professional component, or the specific requirements of the single subject waiver program, see Page 208 or contact the School of Education Credentials Office.

Requirements for a minor in chemistry: Chemistry 215-216-217, 221-222-223 or 321-322-323, 455, and 456 or 475; Mathematics 200-201-202; and Physics 121, 225, 122 and 226 or 221, 225, 222 and 226.

**Departmental Honors:** A graduating senior will be awarded departmental honors in chemistry after meeting the following requirements: at least a 3.5 average in all chemistry course work taken at the University with a minimum being five chemistry courses, at least a 3.0 average on the comprehensive examinations, and an A in Chemistry 595 or another demonstration of ability to do independent work in chemistry.

### 100. CHEMISTRY IN THE MODERN WORLD

Examination of chemistry, its use by modern man and its value to contemporary society. Designed primarily for students with no high school background in chemistry. Lecture and two hours of laboratory. (5 units)

### 205. FUNDAMENTALS OF CHEMISTRY I: GENERAL CHEMISTRY

Basic introduction to the concepts of chemistry, including the composition of matter and physical and chemical changes. Lecture and three hours of laboratory. *Prerequisite: one year of high school algebra or equivalent.* (5 units)

### 206. FUNDAMENTALS OF CHEMISTRY II: ORGANIC CHEMISTRY

Introduction to the chemistry of organic compounds. Lecture and three hours of laboratory. *Prerequisite: Chemistry 205.* (5 units)

### 207. FUNDAMENTALS OF CHEMISTRY III: BIOCHEMISTRY

Introduction to the principles of modern biological chemistry and to organic compounds of biological interest. Lecture and three hours of laboratory. *Prerequisite: Chemistry 206.* (5 units)

### 215. INTRODUCTORY CHEMISTRY I: ATOMIC STRUCTURE AND CHEMICAL BONDING

The first of a three-course sequence in general chemistry and quantitative analysis. Topics in this course include atomic and molecular structure, chemical bonding, states of matter and solutions. Lecture and six hours of laboratory. *Prerequisites: one year of high school chemistry and three years of high school mathematics, or their equivalents.* (6 units)

### 216. INTRODUCTORY CHEMISTRY II: PRINCIPLES OF CHEMICAL REACTIONS

Chemical kinetics and equilibrium, thermodynamics, redox reactions and electrochemistry, and topics in inorganic, organic, biological and environmental chemistry. Lecture and six hours of laboratory. *Prerequisite: Chemistry 215.* (6 units)

### 217. INTRODUCTORY CHEMISTRY III: MODERN QUANTITATIVE ANALYSIS

Gravimetric and volumetric analysis, chemical equilibria, modern instrumental methods and radioanalytical techniques. Lecture and six hours of laboratory. *Prerequisite: Chemistry 216.* (5 units)

### 221. ORGANIC CHEMISTRY I

Descriptive discussion of carbon compounds, including modern concepts of structure, reaction mechanisms and reactivity. Major emphasis is placed on organic compounds of biological interest. Lecture and three hours of laboratory. For nonchemistry majors only. *Prerequisite: Chemistry 216 or equivalent.* (4 units)

**222. ORGANIC CHEMISTRY II**

Continuation of Chemistry 221. Lecture and three hours of laboratory. *Prerequisite: Chemistry 221 or equivalent.* (4 units)

**223. ORGANIC CHEMISTRY III**

Continuation of Chemistry 222. Lecture and three hours of laboratory. *Prerequisite: Chemistry 222 or equivalent.* (4 units)

**321. PRINCIPLES OF ORGANIC CHEMISTRY I**

Detailed study of organic molecules and their structures, reaction mechanisms, stereochemistry and synthesis. Lecture and six hours of laboratory. *Prerequisite: Chemistry 216.* (5 units)

**322. PRINCIPLES OF ORGANIC CHEMISTRY II**

Continuation of Chemistry 321. Lecture and six hours of laboratory. *Prerequisite: Chemistry 321.* (5 units)

**323. PRINCIPLES OF ORGANIC CHEMISTRY III**

Continuation of Chemistry 322, including special topics in heterocyclic compounds, fats, carbohydrates, and amino acids and proteins. Lecture and six hours of laboratory. *Prerequisite: Chemistry 322.* (5 units)

**392. SCIENTIFIC GLASSBLOWING**

Principles and skills in the construction, modification and repair of scientific glass apparatus. May not be counted toward requirements for the chemistry major. *Prerequisite: consent of instructor.* (2 units)

**436. BIOCHEMISTRY I**

Chemistry of proteins, carbohydrates, lipids, and other classes of biomolecules; the kinetics, mechanism and structure of enzymes; the principles of bioenergetics; and the basic principles of metabolism. Lecture and three hours of laboratory. *Prerequisites: Chemistry 216, and 223 or 323.* (5 units)

**437. BIOCHEMISTRY II**

Biochemical processes that yield and utilize energy: metabolism of carbohydrates, lipids, amino acids, purines and nucleic acid biosynthesis. Lecture and three hours of laboratory. *Prerequisite: Chemistry 436.* (5 units)

**455. PHYSICAL CHEMISTRY I**

Thermodynamics and the properties of solutions. Lecture and six hours of laboratory. *Prerequisites: Chemistry 216, Mathematics 202 and Physics 122 and 226, or 222 and 226.* (6 units)

**456. PHYSICAL CHEMISTRY II**

Phase equilibria, electrochemistry, transport properties, reaction rates and mechanisms, and quantum mechanics. Lecture and six hours of laboratory. *Prerequisite: Chemistry 455.* (6 units)

**475. INORGANIC CHEMISTRY**

Inorganic compounds and reactions. Special emphasis on group theory, structure, kinetics, and thermodynamic principles. Lecture and six hours of laboratory. *Prerequisite or corequisite: Chemistry 456.* (6 units)

**500. TOPICS IN CHEMISTRY**

Lecture course on an advanced chemistry topic such as: bio-physical chemistry, history of chemistry, literature of chemistry, natural products chemistry, polymer chemistry, synthetic organic chemistry, theoretical organic chemistry or quantum mechanics. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

**501. ADVANCED LABORATORY TECHNIQUES**

Advanced laboratory course on a subject such as organic or inorganic chemistry. May be repeated for credit as topics change. *Prerequisites: the basic course covering the subject of the Advanced Laboratory Techniques course and consent of instructor.* (2½ units)

## 176 / Chemistry

### 545. ADVANCED ANALYTICAL CHEMISTRY

Principles and techniques of modern instrumental analysis, including spectrophotometry, spectroscopy, chromatography, X-ray analysis, mass spectrometry and potentiometry. Lecture and six hours of laboratory. *Prerequisites: Chemistry 217, 223 or 323, and 456.* (6 units)

### 576. ADVANCED INORGANIC CHEMISTRY

Current developments in inorganic chemistry, including coordination chemistry, non-metals and metalloids. Lecture only. *Prerequisite: Chemistry 475.* (5 units)

### 590. CHEMISTRY SEMINAR

Topics of current chemical interest, presented by students, faculty and guest speakers. May be taken once for credit toward the major requirements for graduation. *Prerequisite: Chemistry 323 or 455.* (1 unit)

### 595. INDEPENDENT STUDY

Laboratory and/or library research conducted under the direction of a faculty member. A total of six units in Chemistry 595 may be applied toward the major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## COMMUNICATION

*Department of Communication  
Creative Arts Building, Room 187  
887-7685*

Defined as “the creation, transmission and evaluation of messages,” communication is a multifaceted discipline combining both academic and professional interests. Through courses in communication, students learn to describe, interpret and evaluate the communication processes as they occur within and among individuals, groups, organizations and societies. Students explore problems in diverse media (platform, conference, print, radio, television, film), settings (family, industry, professions, government) and contexts (racial, cultural, international).

The educational objectives established for the degree program in communication are the following terminal competencies: understand relationships between symbols and culture, discover information from its sources, describe characteristics of potential audiences, translate information into an audience’s conceptual framework, transmit information/messages clearly in media appropriate to the audience, evaluate messages and their effects on audiences and appreciate the ethics of communication.

By the mid-1980s more than half of the country’s gross national product was spent on information products and services. Communication is the means by which information is shared. The growth of communication studies reflects in part a growing technology permitting spoken language to move from the forum of Greece to the surface of the moon and around the planet in mere moments. Communication majors enter careers in business and industry, government and social services, education, media and the professions in positions of public relations, marketing, teaching, sales, media production, writing, personnel, on-air media, advertising and training. Men and women across the ages have testified how the study of communication aided their personal and professional lives, whether they be persuaders, conciliators, diplomats, teachers and scholars, or researchers.

In today’s world of changing and integrated communications technology, the department’s curriculum reflects the belief that communication should be studied as a single discipline integrated into the liberal arts. Practicums and internships support but do not substitute for a sound theoretical base. Practicums are available for participation in department-sponsored journalism and radio labs on campus and in intercollegiate forensics activities. Internships are available on and off campus in the full range of communication professions.



## **178 / Communication**

### **Requirements for the Bachelor's Degree:**

*Requirements for the major:*

*Lower-division core (20 units):*

**COMMUNICATION 120. ORAL COMMUNICATION**

**COMMUNICATION 201. INTERCULTURAL COMMUNICATION**

**COMPUTER SCIENCE 100. COMPUTER LITERACY**

*or*

**COMPUTER SCIENCE 120. FUNDAMENTALS OF COMPUTING**

**MATHEMATICS 100. THE IDEAS OF MATHEMATICS**

*or*

**MATHEMATICS 110. INTRODUCTION TO COLLEGE MATHEMATICS**

*Upper-division core (39 units):*

**COMMUNICATION 301. COMMUNICATION THEORIES AND SYSTEMS**

**COMMUNICATION 501. LEGAL AND ETHICAL ASPECTS OF COMMUNICATION**

**COMMUNICATION 596. SENIOR-LEVEL INTEGRATIVE SEMINAR**

**ENGLISH 311. THE ENGLISH LANGUAGE**

*or*

**PHILOSOPHY 330. PHILOSOPHY OF LANGUAGE**

**PSYCHOLOGY 411. PSYCHOLOGY OF MASS MEDIA COMMUNICATION**

**SOCIOLOGY 308. INTRODUCTION TO SOCIOLOGICAL RESEARCH**

**SOCIOLOGY 363. SOCIOLOGY OF MASS COMMUNICATION**

Plus a minimum of 3 units chosen from:

**COMMUNICATION 591. INTERNSHIP/EXTERNSHIP IN COMMUNICATION**

*or*

**COMMUNICATION 595. INDEPENDENT STUDY**

A minimum of 20 units from an elective cluster to be selected in consultation with an advisor. The following clusters are authorized:

### **INDIVIDUALIZED PROGRAM CLUSTER**

Majors desiring a generalist program should select upper-division communication courses by advisement.

### **ORGANIZATIONAL COMMUNICATION CLUSTER**

*Option A: Business Communication*

5 units selected from the following:

**COMMUNICATION 311. PROFESSIONAL AND TECHNICAL ORAL COMMUNICATION**

**COMMUNICATION 595. INDEPENDENT STUDY**

**THEATER ARTS 211. ORAL INTERPRETATION OF LITERATURE**

At least 5 units selected from the following:

**COMMUNICATION 241. INTERVIEWING**

**PSYCHOLOGY 315. COMMUNICATION PROCESSES**

At least 10 units selected from the following:

**\*PUBLIC ADMINISTRATION 307. PUBLIC RELATIONS IN THE PUBLIC SECTOR**

or

**\*COMMUNICATION 341. FUNDAMENTALS OF PUBLIC RELATIONS**

**MANAGEMENT 350. ADMINISTRATIVE COMMUNICATIONS**

or

**COMMUNICATION 421. ORGANIZATIONAL COMMUNICATION**

**MANAGEMENT 355. MANAGEMENT OF ADMINISTRATIVE CONFLICT**

or

**COMMUNICATION 422. COMMUNICATION IN CONFLICT**

*Option B: Training Communication*

**COMMUNICATION 331. TECHNIQUES FOR SKILLS TRAINER**

**COMMUNICATION 531. COMMUNICATION DYNAMICS IN THE CLASSROOM**

At least 5 units selected from the following:

**COMMUNICATION 311. PROFESSIONAL AND TECHNICAL ORAL COMMUNICATION**

**COMMUNICATION 595. INDEPENDENT STUDY**

**THEATRE ARTS 211. ORAL INTERPRETATION OF LITERATURE**

At least 5 units selected from the following:

**COMMUNICATION 241. INTERVIEWING**

**PSYCHOLOGY 315. COMMUNICATION PROCESSES**

**PROFESSIONAL WRITING CLUSTER**

At least 5 units selected from the following:

**COMMUNICATION 241. INTERVIEWING**

**PSYCHOLOGY 315. COMMUNICATION PROCESSES**

At least 5 units selected from the following:

**COMMUNICATION 242. THEORY AND PRACTICE OF NEWSPAPER JOURNALISM**

**\*\*COMMUNICATION 243. JOURNALISM PRACTICUM**

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\* Students may receive credit in the communication major for either Public Administration 307 or Communication 341, but not both.  
\*\* Communication 243 must be taken concurrently with, or subsequent to Communication 242 equalling a total of 7 units.

## **180 / Communication**

### **COMMUNICATION 351. TOPICS IN PROFESSIONAL WRITING**

At least 10 units selected from the following:

**\*PUBLIC ADMINISTRATION 307. PUBLIC RELATIONS IN THE PUBLIC SECTOR**  
or

**\*COMMUNICATION 341. FUNDAMENTALS OF PUBLIC RELATIONS**

**COMMUNICATION 421. ORGANIZATIONAL COMMUNICATION**

**COMMUNICATION 451. DIFFUSION OF INNOVATIONS**

**COMMUNICATION 471. COMPARATIVE COMMUNICATION SYSTEMS**

## **MEDIA PRODUCTION CLUSTER**

At least 5 units selected from the following:

**ART 380. COMMUNICATIONS DESIGN**

**COMMUNICATION 595. INDEPENDENT STUDY**

**MUSIC 416. ELECTRONIC MUSIC**

**THEATRE ARTS 312. ORAL INTERPRETATION FOR THE THEATRE**

The remaining units to be selected from the following:

**ART 382A. COMMUNICATIONS SPECIALTIES: DISPLAY AND TRADESHOW DESIGN**

**ART 382B. COMMUNICATIONS SPECIALTIES: ILLUSTRATION**

**ART 382C. COMMUNICATIONS SPECIALTIES: TYPOGRAPHY/PRODUCTION**

**ART 382D. COMMUNICATIONS SPECIALTIES: PUBLICATION DESIGN**

**ART 382E. COMMUNICATIONS SPECIALTIES: MARK AND LOGO DESIGN**

**ART 382F. COMMUNICATIONS SPECIALTIES: PACKAGING DESIGN**

**ART 382G. COMMUNICATIONS SPECIALTIES: SEMINAR IN COMMUNICATIONS DESIGN**

**ART 383. PHOTOGRAPHY I**

**ART or COMMUNICATION 386. AUDIO AND VIDEO MEDIA**

**COMMUNICATION 361. NARROWCASTING**

**EDUCATION 547. EDUCATIONAL TECHNOLOGY**

**† MUSIC 427. STUDIO RECORDING TECHNIQUES**

**MUSIC 519. AUDIO PRODUCTION**

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\* Students may receive credit in the communication major for either Public Administration 307 or Communication 341, but not both.

† Only 2½ units can be used for the communication major.

## HISPANIC MEDIA CLUSTER

*NOTE: Admission to this cluster requires certification of Spanish language competency by Spanish faculty.*

At least 10 units to be selected from the following:

**SPANISH 302. THEORY AND PRACTICE IN COMPOSITION**

**SPANISH 312. TECHNIQUES FOR PROFESSIONAL INTERPRETING AND TRANSLATING IN SPANISH**

**SPANISH 314. ADVANCED CONVERSATION**

**SPANISH 415. COMPARATIVE LINGUISTICS: SPANISH/ENGLISH**

At least 10 units selected from the following:

**COMMUNICATION 471. COMPARATIVE COMMUNICATION SYSTEMS**

**COMMUNICATION 472. HISPANIC AUDIENCES**

**HUMANITIES 460. CULTURE STUDIES (MEXICO, LATIN AMERICA, SPAIN)**

**SPANISH 316. SPANISH IN COMMUNICATION MEDIA**

*Requirements for the minor:*

**COMMUNICATION 120. ORAL COMMUNICATION**

**COMMUNICATION 201. INTERCULTURAL COMMUNICATION**

5 units selected from the following:

**COMMUNICATION 301. COMMUNICATION THEORIES AND SYSTEMS**

**ENGLISH 311. THE ENGLISH LANGUAGE**

**PHILOSOPHY 330. PHILOSOPHY OF LANGUAGE**

5 units selected from the following:

**SOCIOLOGY 363. SOCIOLOGY OF MASS COMMUNICATION**

**PSYCHOLOGY 411. PSYCHOLOGY OF MASS MEDIA COMMUNICATION**

Plus 15 additional upper-division communication units

All majors are required to complete either an internship or independent study project in an applied setting either on campus or in the community.

## Certificate Program

The University offers a certificate program in Communication Skills. Details concerning this program are found on Page 105.

### 120. ORAL COMMUNICATION

Basic characteristics of human communication including such elements as self-awareness, verbal and non-verbal language, values and perception. These elements will be applied to various forms of oral communication settings, for example, dyadic, serial, small group and public speaking. (May not be taken by students who have received credit for Theatre Arts 120.) (5 units)

## **182 / Communication**

### **180. ADVOCACY AND ARGUMENTATION**

Principles of oral argumentation and forensics: evidence, methods of logical analysis, reasoned discourse demonstrated through argumentative speeches and debates. (5 units)

### **201. INTERCULTURAL COMMUNICATION**

Description and analysis of cultural factors in communication such as perception, value systems, language codes and nonverbal communication. Overcoming the communication problems that can result when members of different cultures communicate. (5 units)

### **241. INTERVIEWING**

Interviewing in formal and informal settings. Understanding of informative, persuasive, medical, journalistic, legal and employment interviews. *Prerequisite: Communication 120.* (5 units)

### **242. THEORY AND PRACTICE OF NEWSPAPER JOURNALISM**

Practice in writing and editing will be emphasized. Consideration of the press in its social and historical context. May not be taken for credit by students who have received credit for English 370. *Prerequisite: English 101.* (5 units)

### **243. COMMUNICATION PRACTICUM**

Practical application of communication skills. A combination of A and B may be repeated for credit for a total of not more than 6 units. Communication majors in the Individualized Program may repeat a combination of A and B for a total of 10 units. Graded credit/no credit.

A. Journalism and Public Relations. (2 units)

B. Radio and Television. (2 units)

### **300. ELEMENTS OF PUBLIC SPEAKING**

Principles and techniques of public platform speaking. Analysis and performance. (May not be taken by students who have received credit for Theatre Arts 300. Students may not receive credit for both Communication 300 and Communication 311.) (5 units)

### **301. COMMUNICATION THEORIES AND SYSTEMS**

Semiology, encoding and decoding messages, the perception and interpretation of various modes of communication. *Prerequisite: Communication 120.* (5 units)

### **311. PROFESSIONAL AND TECHNICAL ORAL COMMUNICATION**

Techniques and skills used in professional and technical fields for the transmission of information such as public speech presentations and briefings coordinated with use of audio-visual equipment. Students may not receive credit for both Communication 300 and Communication 311. *Prerequisite: Communication 120.* (5 units)

### **331. TECHNIQUES FOR SKILLS TRAINERS**

Techniques and function of skills training in professional and technical settings. Defining problems, interviewing specialists, preparing instructional programs, evaluating learning. *Prerequisite: Communication 311 or Theatre Arts 211.* (5 units)

### **341. FUNDAMENTALS OF PUBLIC RELATIONS**

Management of formal communications for individuals and organizations intended to influence opinions of various audiences. Topics include history and uses of public relations; planning, executing and evaluating public relations campaigns; public policies relating to public relations; ethics and legal responsibilities. (5 units)

### **351. TOPICS IN PROFESSIONAL WRITING**

Writing for publication in major types of mass communication media. Topics may include education, health, law, science and technology, and sports. May be repeated for credit as topics change. *Prerequisite: English 101.* (5 units)

### **361. NARROWCASTING**

Principles of writing and producing special interest media projects for professional and technical organizations. *Prerequisite: Art 386 or other audio or video media production experience.* (5 units)

### 381. FILM AS COMMUNICATION

Introduction to the art of cinema. Screening and evaluation of representative films to study the translation of written material into visual form. (5 units)

### 382. INTERCOLLEGIATE FORENSICS

Preparation for and participation in intercollegiate debate and/or individual events. May be repeated for credit for a total of not more than 6 units. Graded credit/no credit. *Prerequisite: consent of instructor.* (2 units)

### 386. AUDIO AND VIDEO MEDIA

Introduction to the theories and techniques governing the use of video, photographic and audio-recording equipment in graphic production. (Also offered as Art 386. Students may not receive credit for both.) (4 units)

### 403. INTERPERSONAL RELATIONS

Focuses primarily on interpersonal relationships between managers and their supervisors, peers and subordinates, with particular emphasis on how interpersonal factors may affect policy development and implementation. (Also offered as Management 403. Students may not receive credit for both.) (5 units)

### 421. ORGANIZATIONAL COMMUNICATION

Application of communication network studies and other formal communication studies to the control of communication within the organization. Use of organizational communication media such as house organs. *Prerequisite: Communication 241 or Psychology 315.* (5 units)

### 422. COMMUNICATION IN CONFLICT

Theories of communication for developing consensus through persuasion, problem-solving, conflict management, negotiation and mediation. Major emphasis is placed upon the means of achieving consensus among various societal groups. *Prerequisite: Communication 241 or Psychology 315.* (5 units)

### 451. DIFFUSION OF INNOVATIONS

Diffusion of new ideas, practices and technologies to members of a social system. *Prerequisite: Communication 341 or Public Administration 307.* (5 units)

### 471. COMPARATIVE COMMUNICATION SYSTEMS

Examination of major mass communication systems in foreign countries, both democratic and totalitarian, and the means by which news, propaganda and entertainment are conveyed internationally. *Prerequisite: Communication 201.* (5 units)

### 472. HISPANIC AUDIENCES

Programming for the characteristics and demographics of Hispanic audiences in print and non-print media. (5 units)

### 501. LEGAL AND ETHICAL ASPECTS OF COMMUNICATION

The concept of freedom of speech and press. Exploration of problems and statutes in free speech that affect such areas as advocacy of illegal action, obscenity, libel and slander, and invasion of privacy. (5 units)

### 531. COMMUNICATION DYNAMICS IN THE CLASSROOM

Communication skills in instructional settings. Classroom communication behavior analysis, cultural effects on classroom communication behavior, lecturing skills, group facilitation skills. *Prerequisites: Communication 120 or 300 or 311 or Theatre Arts 211 and Communication 201 or Education 536, or consent of instructor.* (5 units)

### 581. CONTEMPORARY THEORIES OF RHETORIC

Rhetorical theories of the 20th century emphasizing Burke. Principles used for selection of content, organization, style and delivery in the rhetoric of the 20th century. Application to periods and movement studies. (5 units)

## 184 / Communication

### 582. TOPICS IN COMMUNICATION

Special topics in communication taught by professionals in the field. May be repeated for credit as topics change. Graded credit/no credit. (2.5 units)

### 583. TOPICS IN COMMUNICATION

Special topics in communication taught by professionals in the field. May be repeated for credit as topics change. Graded credit/no credit. (5 units)

### 591. INTERNSHIP/EXTERNSHIP IN COMMUNICATION

Supervised work and study of communication activities in private or public settings. A total of 10 units in Communication 591 may be applied toward graduation. Graded credit/no credit. *Prerequisites: Communication 301 and consent of instructor, written consent from cooperating agency and departmental approval of a contract filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

### 595. INDEPENDENT STUDY

Special topics involving library research, experimental or field research, or media production. A total of 10 units in Communication 595 may be applied toward graduation. *Prerequisites: A minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken, and junior or senior status.* (Credit to be arranged: 2 to 5 units)

### 596. SENIOR-LEVEL INTEGRATIVE SEMINAR

Examination of extended case studies in communication history and theory and the critical approaches to them. *Prerequisites: Communication 301, Communication 591 or 595 and senior standing.* May be taken concurrently with Communication 591 or 595 with department approval. (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## COMPUTER SCIENCE

*Department of Computer Science  
Pfau Library Building, Room 43  
887-7368*

Computer science is a relatively new profession concerned with information, its representation, storage, structures, display and the processes by which it is transformed. It deals with various kinds of information: numeric, alphabetic, pictorial, verbal, tactile, and sensory and that requiring instrumentation for detection. This discipline is concerned with effective ways to store, retrieve and display information, algorithms to transform information, languages in which to express algorithms, hardware systems to interpret such languages, theoretical techniques for insuring the accuracy and minimizing the cost of these processes and philosophical foundations of such mechanical intelligence.

Access is available on campus to a wide variety of modern computing equipment, including large scale batch and timesharing systems, minicomputers and microcomputers.

The major in computer science is designed to prepare students for careers in the growing field of computing. It consists of a core of courses providing a broad knowledge of various aspects of computing, plus a selection of elective courses which allows further training in one of several areas in the computer field.

### Requirements for the Bachelor's Degree

*Requirements for the bachelor of science degree:* Computer Science 201, 202; one of 240, 250, 280 or 290; 260, 310, 311, 320, 330, 331 and 450. 15 units of upper-division electives which may include up to five units of 575 or 595. Mathematics 200, 201, 202, 331 and 335. Physics 115 or both 113 and 114, or both 226 and 114. Mathematics 340 and 341, and Computer Science 399 are strongly recommended.

*Departmental Honors:* The department faculty will determine whether a student is to be awarded departmental honors based upon the following criteria: (1) demonstration of independent work by achieving a grade of C or better in a five-unit Computer Science 595 or Credit in Computer Science 575; (2) attainment of a minimum overall GPA of 3.0 in all University courses attempted and a minimum GPA of 3.5 in all computer science courses required by the major (as defined above); (3) at least five computer science courses required by the major must be taken at this University. Candidacy for honors in computer science is voluntary and must be applied for at the beginning of the senior year. Approval of honors rests solely with the department and other factors may weigh in their judgment.

### Certificate Program

The University offers a certificate program in computer programming. Details concerning this program are found on Page 107.



## 186 / Computer Science

### 100. COMPUTER LITERACY

Survey of computers and their use in modern society. Topics on computer architecture, word processing, business applications, communication, graphics, robotics, personal computing, artificial intelligence. Four hours lecture and two hours laboratory. (5 units)

### 120. FUNDAMENTALS OF COMPUTING

Survey of computers, applications and other aspects of computer science. Some elementary programming exercises in BASIC. (5 units)

### 125. INTRODUCTION TO BASIC PROGRAMMING

Introduces the Beginners All-purpose Symbolic Instruction Code (BASIC). Experience in use of time-sharing mode of a computer gained by exercises from variety of applications. No previous computer background required. (2½ units)

### 126. ADVANCED BASIC PROGRAMMING

Advanced features and application of BASIC. Students will write programs using advanced skills including peeks and pokes, simulations, matrices and file handling. *Prerequisite: Computer Science 125.* (2½ units)

### 140. INTRODUCTION TO FORTRAN PROGRAMMING

Introduction to FORTRAN language in which the student will analyze, formulate, code, punch or type and debug a series of programs related to everyday life. A knowledge of BASIC is strongly recommended. May not be counted for credit by students who have received credit for Computer Science 240. (5 units)

### 160. PASCAL PROGRAMMING

Introduction to PASCAL language in which the student will analyze, formulate, code and debug a series of programs from a variety of fields. *Prerequisite: previous computer science course.* (5 units)

### 201. INTRODUCTION TO COMPUTER SCIENCE

Computer programming methods using a current high-level language. Review of computers, applications and other areas of computer science. *Prerequisite: some prior computer programming experience.* (5 units)

### 202. COMPUTER PROGRAMMING

Analyze problems and formulate, document, code and debug programs solving the problems in a high-level language. *Prerequisites: Computer Science 201 and satisfactory score on the entry-level mathematics examination.* (5 units)

### 240. SCIENTIFIC FORTRAN

FORTAN language with emphasis on computer solution of problems reducible to algebraic models and elementary numerical methods. *Prerequisites: Computer Science 202 and Mathematics 200.* (5 units)

### 250. COBOL PROGRAMMING

COBOL language with emphasis on applications to data processing including file processing techniques. *Prerequisite: Computer Science 202 or 125 or 140.* (5 units)

### 260. ASSEMBLY LANGUAGE PROGRAMMING

Number and character representation, instruction set and format, addressing modes, indexing, program structure and linking methods. *Prerequisite: Computer Science 202 or 140 or 240.* (5 units)

### 280. LOW LEVEL LANGUAGE

Study of the assembly language for selected processors such as 8086/88, 68000, PDP 11, VAX 11, etc. May be repeated twice for credit as topics change. *Prerequisite: Computer Science 260.* (5 units)

### 290. HIGH LEVEL LANGUAGE

Study of a selected high-level programming language, such as FORTH, ADA, APL or RPG. May be repeated for credit as topics change. *Prerequisite: Computer Science 202.* (5 units)

**295. COMPUTER SCIENCE PROJECT**

Production of documented computer programs under the direction of a faculty member. May be repeated twice using different projects. *Prerequisites: a minimum overall GPA of 3.00, consent of instructor, and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged 1-4 units)

**298. APPLICATION SOFTWARE TOPICS**

Applications software in areas such as word processing, data base, graphics, desk top publishing, planning and communications will be examined under specific operating systems. This is a how-to course and hands-on experience will be stressed. May be repeated for credit as topics change. No previous computing experience is required.

- |                           |                         |
|---------------------------|-------------------------|
| A. DBASE III+ (2 units)   | F. EXCEL (2 units)      |
| B. CROSSTALK (2 units)    | G. MACDRAW (2 units)    |
| C. LOTUS (2 units)        | H. MACPROJECT (2 units) |
| D. WORD PERFECT (2 units) | J. PAGEMAKER (2 units)  |
| E. WORDSTAR (2 units)     | K. MS/DOS (2 units)     |

**310. COMPUTER SYSTEM ORGANIZATION I**

Introduction to hardware: block diagrams, processors, memory systems, instruction sets and peripherals. Survey of peripheral hardware options: storage, input, output and communications. *Prerequisites: Computer Science 260 and either Physics 115 or both 113 and 114.* (5 units)

**311. COMPUTER SYSTEM ORGANIZATION II**

Detailed study of processors: registers, arithmetic and logic units, busses, subroutine and interrupt handling, elementary logic design and circuitry. Practical work with a small hands-on computer. Lecture and three hours of laboratory. *Prerequisite: Computer Science 310.* (5 units)

**320. COMPARATIVE STUDY OF PROGRAMMING LANGUAGES**

Introduction to formal language specification. Analysis and comparison of data and control structures in most commonly used programming languages. *Prerequisite: Computer Science 202.* (5 units)

**330. DATA STRUCTURES AND ALGORITHMS I**

Data structures such as trees, stacks, lists and queues, as well as their storage allocation and associated algorithms. *Prerequisite: Computer Science 202.* (5 units)

**331. DATA STRUCTURES AND ALGORITHMS II**

Comparison of methods for handling, sorting and searching files. *Prerequisites: Computer Science 330 and Mathematics 335.* (5 units)

**398. ADVANCED APPLICATION SOFTWARE**

Advanced uses of application software will be examined, particularly in regards to their programming capabilities. This is a how-to course and hands-on experience will be stressed. May be repeated for credit as topics change. May not be counted for credit in the Computer Science major. *Prerequisite: Computer Science 298 topic of same name, or equivalent experience.*

- |                         |                      |
|-------------------------|----------------------|
| A. DBASE III+ (2 units) | E. N/TROFF (2 units) |
| B. UNIX SHELL (2 units) | F. EXCEL (2 units)   |
| C. LOTUS (2 units)      | G. ORACLE (2 units)  |
| D. MS/DOS (2 units)     |                      |

**399. COMMUNITY SERVICE PROJECT**

Credit for performing academically related tasks in such agencies as educational, governmental and social service institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

## **188 / Computer Science**

### **410. INPUT/OUTPUT HARDWARE LABORATORY**

A project-oriented hardware class stressing interfacing small computers to other components. Lecture and six hours of laboratory. (6 units)

### **411. ARTIFICIAL INTELLIGENCE**

Problems and issues of artificial intelligence, current techniques and methods, and future prospects of machine intelligence. *Prerequisite: Computer Science 330.* (5 units)

### **420. COMPUTER GRAPHICS**

A broad spectrum of graphics applications from business charts to animation. *Prerequisites: Computer Science 330 and Mathematics 200.* (5 units)

### **430. DATA COMMUNICATION NETWORKS**

Review of hardware and data coding systems including modems, multiplexers and concentrators in networks. Protocols and software systems. *Prerequisites: Computer Science 260, 310 and 330.* (5 units)

### **450. SYSTEMS PROGRAMMING**

Concepts and implementation techniques for assemblers, loaders and compilers. *Prerequisites: Mathematics 200, Computer Science 260, 311, 320 and 330.* (5 units)

### **455. SOFTWARE ENGINEERING**

Advanced techniques and tools for design and construction of complex software systems. Practical work on a complete software environment. *Prerequisite: Computer Science 450.* (5 units)

### **460. OPERATING SYSTEMS**

An overview of operating systems. Principles of resource management and control. Multiprogramming and multiprocessor systems will be included. *Prerequisite: Computer Science 330.* (5 units)

### **470. COMPILERS**

Interpreter and compiler structures. Topics include symbol tables, lexical and syntactic scanners, and object code generation. *Prerequisites: Computer Science 260, 320 and 330.* (5 units)

### **480. DATA BASE SYSTEMS**

Filing and data base systems. Hierarchical, relational and network models including design and implementation. *Prerequisite: Computer Science 330.* (5 units)

### **490. TOPICS IN COMPUTER SCIENCE**

An in-depth consideration of selected areas of computer science. May be repeated for credit as topics change. *Prerequisites: Computer Science 331 and consent of instructor.* (2½ units)

### **540. SYSTEM SIMULATION**

Theory and implementation of computerized modeling. Examples will include administrative, physical and biological systems. *Prerequisite: Computer Science 330 or consent of instructor.* (5 units)

### **575. INTERNSHIP IN COMPUTER SCIENCE**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

### **595. INDEPENDENT STUDY**

Laboratory and/or library research conducted under the direction of a faculty member. A total of six units in Computer Science 595 may be applied toward the computer science major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## CRIMINAL JUSTICE

*Department of Criminal Justice  
Administration Building, Room 183  
887-7252*

A system of criminal justice must meet the needs of each individual citizen as well as the needs of complex social, economic and governmental institutions. The B.A. degree program in criminal justice was developed with these needs in mind and is appropriate for both career-bound preservice students and inservice personnel in law enforcement, probation, parole, corrections, social service agencies and related areas.

In addition, the program is designed to provide students with an appropriate academic background for continuing into graduate studies in criminal justice or pursuing graduate study in other areas such as law or criminology.

The criminal justice major is an interdisciplinary program with enough flexibility to permit students to pursue their own interests. For example, students wishing to emphasize law enforcement may select particularly appropriate courses within the major and are encouraged to minor in administration, political science or sociology. Students directed toward probation, parole or corrections work are advised to select courses accordingly and to take electives in psychology or sociology.

Students transferring from community colleges may substitute selected administration of justice and corrections courses for Criminal Justice 101, 102 and 103 and may be given lower-division credit toward the major for two additional courses.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:*

*Lower-Division Core Courses (Prerequisites for upper-division courses)*

**CRIMINAL JUSTICE 101. INTRODUCTION TO CRIMINAL JUSTICE I**

**CRIMINAL JUSTICE 102. INTRODUCTION TO CRIMINAL JUSTICE II**

*Upper-division Core Courses*

**CRIMINAL JUSTICE 301. POLICE AND PRIVATE SECURITY ADMINISTRATION**

or

**CRIMINAL JUSTICE 302. COURTS AND CORRECTIONS ADMINISTRATION**

**CRIMINAL JUSTICE 311. RESEARCH METHODS IN CRIMINAL JUSTICE**

**CRIMINAL JUSTICE 351. THEORIES OF CRIME AND DELINQUENCY**

**CRIMINAL JUSTICE 353. JUVENILE JUSTICE SYSTEM**

- CRIMINAL JUSTICE or SOCIOLOGY 357. LAW ENFORCEMENT \*
- CRIMINAL JUSTICE or SOCIOLOGY 358. PUNISHMENT AND CORRECTIONS
- CRIMINAL JUSTICE or SOCIOLOGY 359. LAW AND SOCIETY
- CRIMINAL JUSTICE or SOCIOLOGY 450. WHITE COLLAR CRIME
- ANTHROPOLOGY 335. CROSS-CULTURAL PERSPECTIVES ON CRIME AND DEVIANCE
- POLITICAL SCIENCE 411. THE BILL OF RIGHTS

Plus 20 units of electives chosen from the courses listed below:

- CRIMINAL JUSTICE or SOCIOLOGY 103. CRITICAL ISSUES IN CRIMINAL JUSTICE
- CRIMINAL JUSTICE 354. VICTIMOLOGY
- CRIMINAL JUSTICE 355. ORGANIZED CRIME
- CRIMINAL JUSTICE 356. CRIMES WITHOUT VICTIMS
- CRIMINAL JUSTICE 360. CRIME AND SOCIAL POLICY
- CRIMINAL JUSTICE 361. COMPARATIVE CRIMINAL JUSTICE SYSTEMS
- CRIMINAL JUSTICE 575. INTERNSHIP IN CRIMINAL JUSTICE
- CRIMINAL JUSTICE 590. SEMINAR IN CRIMINAL JUSTICE
- CRIMINAL JUSTICE 595. INDEPENDENT STUDY

With consent of department advisor, 10 upper-division units in related fields may be substituted for 10 units of the elective requirement.

*Requirements for the minor:*

- CRIMINAL JUSTICE 101. INTRODUCTION TO CRIMINAL JUSTICE I
- CRIMINAL JUSTICE 102. INTRODUCTION TO CRIMINAL JUSTICE II
- CRIMINAL JUSTICE 301. POLICE AND PRIVATE SECURITY ADMINISTRATION  
or  
CRIMINAL JUSTICE 302. COURTS AND CORRECTIONS ADMINISTRATION
- CRIMINAL JUSTICE 351. THEORIES OF CRIME AND DELINQUENCY

Plus

Two courses from:

- CRIMINAL JUSTICE or SOCIOLOGY 357. LAW ENFORCEMENT
- CRIMINAL JUSTICE or SOCIOLOGY 358. PUNISHMENT AND CORRECTIONS
- CRIMINAL JUSTICE or SOCIOLOGY 359. LAW AND SOCIETY

*Honors in the Major:* Students majoring in criminal justice are eligible to receive honors in criminal justice at graduation if the following conditions are met: (1) at least one-half of the course work required by the major is completed at this University, (2) at least a 3.5 grade-point average in the major, (3) an overall undergraduate grade-point average of 3.0, and (4) completion of Criminal Justice 597. Students interested in receiving this recognition must initiate the process by filing a formal application with the chair of the Criminal Justice Department.

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\* Criminal Justice 357A is also acceptable.

## MASTER OF ARTS IN CRIMINAL JUSTICE

The M.A. in Criminal Justice is designed to serve the growing number of individuals in the criminal justice system who desire postbaccalaureate education, as well as those in more traditional public and private employment who may wish to acquire further education in criminal justice.

The program can serve a variety of student interests. It has been designed with a limited prerequisite requirement to enable students with baccalaureate degrees in related fields such as psychology, administration, anthropology or social sciences to enroll along with students with undergraduate degrees in sociology and criminal justice.

The program is intended for evening students primarily and, therefore, classes will be predominately scheduled between 4 and 10 p.m.

### Admission to the M.A. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college or university;
2. Completion of an undergraduate major in sociology, criminology, criminal justice, or in an allied field such as administration, psychology or social sciences, or recommendation for admission to the program by a majority of the faculty in the program. Competence in the following prerequisite courses or their equivalents:
  - Sociology 308. Introduction to Sociological Research
  - Sociology 350. Criminology
  - Criminal Justice or Sociology 357. Law Enforcement \*
  - Criminal Justice or Sociology 358. Punishment and Corrections
  - Criminal Justice or Sociology 359. Law and Society
3. A cumulative undergraduate grade-point average of at least 2.5 overall and 3.0 in the major;
4. Completion of the GRE Aptitude Test (verbal, quantitative and analytical aptitude) for evaluation by the criminal justice faculty. If the test result is not submitted in time for the entry term, admission will be conditionally classified graduate standing.
5. Submission to the criminal justice program of three letters of recommendation from individuals who are familiar with the student's academic work and potential to complete the program successfully. Letters must come directly from the writer or be included in a placement file, and will be evaluated by criminal justice faculty members.

Students who meet the general requirements of the University for admission to postbaccalaureate study but do not meet the specific requirements for admission to classified status may be admitted to the program as conditionally classified graduate students. Students enrolling in that status should consult an advisor in the criminal justice program upon admission to work out an appropriate program. With the aid of an advisor, these students may later petition for admission to classified status. The graduate committee will then consider the student's scholastic performance and other circumstances and either grant classi-

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\* Criminal Justice 357A is also acceptable.

fied status, specify necessary preparatory studies, or recommend other courses of action.

### **Advancement to Candidacy**

To be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed at least 15 quarter units of approved graduate course work with a minimum grade-point average of 3.0;
3. Made arrangements for three faculty members, in consultation with the criminal justice coordinator, to serve as the student's graduate advisory committee, with one member designated to chair the committee;
4. Submitted a formal program of graduate studies to the criminal justice coordinator and the associate dean of graduate programs as approved by the student's graduate advisory committee. This should be done no later than the end of the second quarter of graduate work.

### **Requirements for Graduation**

1. A minimum of 45 units of acceptable graduate level work, with at least 32 quarter units completed in residence at this University. 25 quarter units must be in 600-level courses;
2. A grade-point average of at least 3.0 in all courses taken after admission to classified status;
3. Completion of the course work listed under curriculum below.
4. Completion of an acceptable thesis and final oral examination.
5. Any additional general requirements not cited above and listed on Page 94.

### **Requirements for the M.A. Degree**

Requirements for the Master of Arts in Criminal Justice: Completion of Criminal Justice 602, 603, 604, 650 and 699A and B. In addition, the student must complete 20 units of electives to be chosen from Public Administration 562, 563, 564, 611 or 680.

### **Certificate Program**

A certificate program in criminal justice is offered by the University. Details concerning this program are found on Page 107.

#### **101. INTRODUCTION TO CRIMINAL JUSTICE I**

A descriptive overview of the adult and juvenile justice system, from the commission of crimes and offenses through sentencing and appeal procedures. Criminal justice standards and goals and the relationship of the social and behavioral sciences to criminal justice will be emphasized. (5 units)

#### **102. INTRODUCTION TO CRIMINAL JUSTICE II**

Historical development of criminal law and its contemporary application. Theories of punishment and corrections will be reviewed, as they relate to the criminal justice system. (5 units)

#### **103. CRITICAL ISSUES IN CRIMINAL JUSTICE**

Contemporary problem areas in the criminal justice system, including issues in evidence, arrest and detention, search and seizure, the ideology of crime control and criminal justice reform, and specific areas of crime (organized crime, political crime). (Students may not receive credit for both Criminal Justice 103 and Sociology 103.) (5 units)



## 194 / Criminal Justice

### 301. POLICE AND PRIVATE SECURITY ADMINISTRATION

Evaluation and analysis of criminal justice administration with a focus on the law enforcement and private security areas. Emphasis on organizational structure, function and behavioral processes. (5 units)

### 302. COURTS AND CORRECTIONS ADMINISTRATION

Evaluation and analysis of criminal justice administration with a focus on the courts and correctional areas. Emphasis on organizational structure, function and behavioral processes. (5 units)

### 311. RESEARCH METHODS IN CRIMINAL JUSTICE

Introduction to the use of scientific methodology and statistical techniques used to conduct basic and applied research in the criminal justice field. Computer applications and data processing emphasized. Lecture and six hours of laboratory. *Prerequisite: Mathematics 100 or Mathematics 110.* (6 units)

### 351. THEORIES OF CRIME AND DELINQUENCY

Causes of crime and delinquency with emphasis on sociological factors. (5 units)

### 353. JUVENILE JUSTICE SYSTEM

History and development of the juvenile justice system, with special emphasis on delinquency, the juvenile court and other agencies of juvenile justice system. (5 units)

### 354. VICTIMOLOGY

Victim role, criminal-victim relationships, and societal reaction to victimization, including crisis-intervention centers, court related victim/witness services, restitution and compensation. (5 units)

### 355. ORGANIZED CRIME

History, development and effects of organized crime in the U.S., relationship of organized crime to political and economic structures, methods of combatting organized crime. (5 units)

### 356. CRIMES WITHOUT VICTIMS

Nature, extent and control of "crimes" such as gambling, prostitution, drug use, drunkenness, obscenity, and pornography. (5 units)

### 357. LAW ENFORCEMENT

Sociological analysis of law enforcement systems and the police role, consideration of police discretion and differential implementation of the criminal law, problems affecting crime control and the interdependence of police and community. A self-paced version of this course (Criminal Justice 357A) is also available. (Students may not receive credit for more than one of the following courses: Criminal Justice 357, Criminal Justice 357A, or Sociology 357.) (5 units)

### 358. PUNISHMENT AND CORRECTIONS

History and theories of punishment and treatment in dealing with criminals, sociological analysis of institutional systems and community based systems, work release programs and pre-release guidance centers. (Students may not receive credit for both Criminal Justice 358 and Sociology 358.) (5 units)

### 359. LAW AND SOCIETY

Social and cultural factors underlying the development, maintenance and change of law, legal structures and legal processes; comparative analysis of legal systems; and sociological consideration of the nature of justice. (Students may not receive credit for both Criminal Justice 359 and Sociology 359.) (5 units)

### 360. CRIME AND SOCIAL POLICY

Policies and programs for prevention and control of crime and delinquency, including evaluation of specific programs. (5 units)

### 361. COMPARATIVE CRIMINAL JUSTICE SYSTEMS

Description and analysis of selected international criminal justice systems. Emphasis on administrative functions, processes and outcomes. (5 units)

**450. WHITE COLLAR CRIME**

Study of America's most costly form of crime and deviance. History, causes, consequences, prevention and explanations of economic crime and abuse of power in the corporate and business world, the professions, trades, the unions and government. (Students may not receive credit for both Criminal Justice 450 and Sociology 450.) (5 units)

**575. INTERNSHIP IN CRIMINAL JUSTICE**

Supervised work and study in private or public organizations. May be repeated once for credit. Open only to majors. *Prerequisites: consent of instructor and department.* (5 units)

**590. SEMINAR IN CRIMINAL JUSTICE**

Special topics in criminal justice. May be repeated for credit with consent of instructor as topics change. *Prerequisite: junior, senior or graduate standing.* (5 units)

**595. INDEPENDENT STUDY**

In-depth research into special topics concerned with the criminal justice system utilizing readings, library and/or field research. A total of 10 units in Criminal Justice 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and department chair's approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

**597. SENIOR HONORS PROJECT**

Original research in an area of criminal justice studies, culminating in a major research report receiving approval of the criminal justice faculty. Enrollment limited to students whose formal application for departmental honors is approved. (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**602. CRITICAL ISSUES AND CRIMINAL JUSTICE POLICY**

Intensive study of contemporary problems that influence the development and implementation of criminal justice policy as it affects criminal justice administration and the general public. *Prerequisite: consent of instructor.* (5 units)

**603. ADVANCED STUDIES IN CRIMINAL JUSTICE ADMINISTRATION**

Comprehensive analysis of organizational and management principles as applied to the unique functions of the criminal justice system. *Prerequisite: consent of instructor.* (5 units)

**604. ADVANCED TECHNIQUES OF BASIC AND APPLIED RESEARCH IN CRIMINAL JUSTICE**

The application of scientific methods used as a means for inquiry, description and analysis of crime and the behavior of the criminal justice system. *Prerequisite: consent of instructor.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**650. DIRECTED AREA STUDIES IN CRIMINAL JUSTICE**

Advanced study in a specific area selected by the student with the approval of the student's committee. *Prerequisite: consent of instructor.* (Credit to be arranged: 2 to 5 units)

## 196 / Criminal Justice

### 698. EXTENDED ENROLLMENT

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in the course have full use of University facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

### 699. THESIS

Preparation of the thesis for the M.A. in Criminal Justice under the direction of a faculty member from the student's committee. Criminal Justice 699B must be completed before credit will be awarded for 699A. *Prerequisite: advancement to candidacy.*

A. (2½ units)

B. (2½ units)

## EARTH SCIENCE

*School of Natural Sciences  
Biological Sciences Building, Room 130  
887-7341*

At the present time the University does not offer a major program in earth science or geology. The courses listed below are offered to permit an elective option in general education (Earth Science 101) and in support of other major programs.

### **101. PHYSICAL GEOLOGY**

An introduction to the study of the earth, particularly the structure, composition, distribution and modification of earth materials, and processes that shape the surface of the earth. Lecture and three hours of laboratory. (5 units)

### **301. GEOLOGY OF CALIFORNIA**

Geologic evolution of California, its structural framework and geomorphic provinces. Lecture only. *Prerequisite: Earth Science 101.* (5 units)

### **310. FIELD GEOLOGY**

Field investigation of rocks and geologic structures and methods of geological observation and interpretation in a geologically noteworthy area such as Great Basin, Sierra Nevada, Transverse Ranges or selected national parks and monuments. May be repeated for credit as the topics change. *Prerequisite: Earth Science 101.* (2½ units)

### **595. INDEPENDENT STUDY**

Laboratory, field or library research conducted under the direction of a faculty member. A total of six units in Earth Science 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of the Office of the School of Natural Sciences, and approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

### **599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)



## ECONOMICS

*Department of Economics*  
*Student Services Building, Room 139*  
*887-7278*

Whenever a choice must be made between alternatives—whether a personal decision to study math or play ball, or a governmental decision whether to spend a billion dollars on the space program or on schools—there are economic ramifications. Individuals, business, government and other social institutions must, if they are to use resources wisely, consciously consider economic factors in making decisions. As a social science, economics also studies the way in which social, political and cultural factors influence this decision-making process. The use of economic principles enables individuals and organizations to analyze problems in an orderly manner and to make sound choices about the economic desirability of a program or activity.

Training in economics, supplemented by course work in other disciplines, provides excellent preparation for particular careers in industry, government and many professions including management, law, education, public administration or consulting. Because economic problems are encountered everywhere and touch everyone's life, the study of economics also provides useful intellectual training for individuals who may be uncertain about their future plans.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:* Economics 200, 202, 300, 302, 500, and at least 25 additional upper-division units. With approval of a departmental advisor, up to 10 units in related fields may be counted toward the upper-division course requirement in economics. Mathematics 110 and Management Science 210 or equivalent are also required. Mathematics 200 is highly recommended.

*Requirements for a minor in economics:* Economics 200, 202, 300, 302, plus 10 units of upper-division economics.

*Business economics concentration in the B.A. in Administration:* The School of Business and Public Administration offers a concentration in business economics within its B.A. degree. Refer to Page 134 for details.

*Departmental Honors:* Departmental honors will be awarded upon graduation to students majoring in economics who have earned a 3.5 grade-point average in all economics courses attempted at this University, completed at least half of all work in economics at this University and been recommended for departmental honors by economics faculty.

### **104. INTRODUCTION TO ECONOMICS**

Economic models, ideas and approaches to social issues. Cannot be counted toward fulfillment of requirements in the economics major. (5 units)

## 200 / Economics

### 200. PRINCIPLES OF MICROECONOMICS

Introduction to the economic principles which govern production exchange, the pricing of goods, services and resources and the distribution of incomes in competitive and non-competitive markets. (5 units)

### 202. PRINCIPLES OF MACROECONOMICS

Introduction to the theory of national income determination with particular emphasis on employment and unemployment, price levels, monetary and fiscal policies, international economic issues and theories of economic growth. *Prerequisite: Economics 200 or consent of instructor.* (5 units)

### 300. INTERMEDIATE MACROECONOMICS

Analysis of the problems of measurement and determination of levels of national income, and investigation of macroeconomic policy issues including inflation and unemployment. *Prerequisites: Economics 200 and 202.* (5 units)

### 302. INTERMEDIATE MICROECONOMICS

Detailed analysis of economic behavior of consumers and producers in competitive and noncompetitive markets, and of the criteria for achieving optimality in the allocation and use of resources. *Prerequisites: Economics 200 and 202.* (5 units)

### 305. INTENSIVE INTRODUCTORY ECONOMICS

An intensive introduction to micro- and macroeconomic concepts for graduate students. Not open to students with credit in Economics 200 and 202. *Prerequisite: graduate standing.* (5 units)

### 310. ECONOMICS IN THE CLASSROOM

Economics method of analysis as it applies to contemporary problems. Designed for teachers of elementary children. May not be counted toward fulfilling requirements for the economics major. (5 units)

### 322. MANAGERIAL ECONOMICS

Application of microeconomic theory and analysis to business and administrative problems. *Prerequisites: Economics 200, 202 and 335.* (5 units)

### 333. WOMEN IN THE ECONOMY

Investigation of women's economic status, for example, differentials in income, incidence of poverty and unemployment rates; women's role in the economy; and an examination of proposals affecting women's status. (5 units)

### 335. ECONOMICS APPLICATIONS OF MICROCOMPUTERS

Formulation and construction of computer models using economic concepts and principles. Application of models to various economic phenomena, deriving solutions under alternative assumptions. *Prerequisites: Economics 200 and 202.* (5 units)

### 352. THE ECONOMICS OF POVERTY AND DISCRIMINATION

Investigation of the incidence of poverty among ethnic and racial minorities, women and the aged in the U.S.; analysis of discrimination and other causes of poverty among these groups; survey of methods for minimizing poverty in the United States. (5 units)

### 360. ECONOMICS OF THE ENVIRONMENT

Economic causes and implications of air and water pollution, urban congestion, natural resource depletion and population growth; examination of the economic impacts of alternative forms of environmental control and protection. (5 units)

### 370. THE AMERICAN ECONOMY

Development and structure of the American economy. (5 units)

**372. BUSINESS CYCLES**

Causes and nature of business fluctuations. Application of macroeconomic theory and cyclical indicators to detect changes in the U.S. economy using the microcomputer as a forecasting tool. *Prerequisites: Economics 200, 202, and 335.* (5 units)

**390. SELECTED TOPICS IN ECONOMICS**

Examination of selected topics of current interest in economics. May be repeated for credit as topics change. (5 units)

**410. MONEY AND BANKING**

Demand for money, creation and manipulation of the money supply, and the role of banking and other financial institutions in the United States in determining the level of employment, prices and international payments equilibrium. *Prerequisite: Economics 202.* (5 units)

**420. COMPARATIVE ECONOMIC SYSTEMS**

Comparison of theories and forms of organization of major contemporary economic systems such as those found in command, market-socialism and predominantly free-enterprise economies. *Prerequisite: Economics 202.* (5 units)

**421. ECONOMIC HISTORY OF THE UNITED STATES**

Economic history of the United States from the founding of the colonies to the present. (Also offered as History 421. Students may not receive credit for both.) (5 units)

**430. INTERNATIONAL ECONOMICS**

Theory of economic growth through international specialization and exchange with emphasis on economic disturbances in international markets, mechanisms for adjustment, policies bearing on international trade and selected current issues. *Prerequisites: Economics 200 and 202.* (5 units)

**445. MARXIAN POLITICAL ECONOMY**

Introduction to the dynamics of the capitalist economic system as viewed from Marx's theory of value, production and distribution. *Prerequisites: Economics 200 and 202 or consent of instructor.* (5 units)

**450. ECONOMIC DEVELOPMENT**

Economic problems confronting developing countries; policies hypothesized to achieve desired rates of economic development in these areas. (5 units)

**460. LABOR ECONOMICS**

Micro- and macroeconomic aspects of labor markets including the workings of labor markets in competitive and non-competitive markets, structure and causes of unemployment, incomes policies, and selected institutional topics including the economics of U.S. labor movements. *Prerequisite: Economics 200.* (5 units)

**475. PUBLIC FINANCE**

Rationale for government actions in an economy which emphasizes private sector allocation; principles of taxation, theories of tax incidence, expenditure evaluation, government sources and uses of revenue, and government budgeting. *Prerequisite: Economics 200 or consent of instructor.* (5 units)

**480. INTRODUCTION TO MATHEMATICAL ECONOMICS**

Application of mathematical concepts and techniques to economic models of optimization by consumers and producers, to models of price determination and to the study of input-output techniques. *Prerequisites: Economics 200 and Mathematics 200.* (5 units)

**490. INTRODUCTION TO ECONOMETRICS**

Various statistical methods of testing economic hypotheses. *Prerequisites: Economics 200, 202, Mathematics 110, and Management Science 210, or equivalent.* (5 units)



## 202 / Economics

### 500. HISTORY OF ECONOMIC THOUGHT

Survey of the development of economic doctrines and analyses and concurrent intellectual and social history with emphasis on the ideas of landmark economists from Adam Smith to John Maynard Keynes. *Prerequisite: Economics 200.* (5 units)

### 575. INTERNSHIP IN ECONOMICS

Supervised work in public or private organizations emphasizing practical applications of economic concepts and relationships. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and departmental approval of a written proposal submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (5 units)

### 590. SEMINAR IN ECONOMICS

Intensive study of some phase of economics. May be repeated for credit as subject matter changes and with consent of instructor. (5 units)

### 595. INDEPENDENT STUDY

Investigation of special topics not covered by the department's curricular offerings. A total of 10 units in Economics 595 may be applied toward the major and graduation. *Prerequisites: A minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## EDUCATION

*School of Education*

*Pfau Library Building, Room 500 North  
887-7571*

The School of Education offers course work designed to prepare students for a variety of careers in education. At the present time, the University is approved to offer the following credentials through the Department of Teacher Education:

- Multiple subject teaching credential for teaching in a self-contained classroom (all grades),
- Multiple subject teaching credential with emphasis in bilingual/cross-cultural teaching in a self-contained classroom (all grades),
- Single subject credential for teaching a single subject in a departmentalized school (all grades),
- Designated subjects teaching credential for technical, trade or vocational subjects or adult education. For information concerning the Bachelor of Vocational Education see Page 425.

In general, students electing to pursue an emphasis in elementary teaching should undertake one of the multiple subject credentials. Students wishing to follow an emphasis in secondary teaching should pursue the single subject credential.

In addition the following credentials are offered through the Department of Graduate Education Programs:

- Adapted physical education specialist
- Administrative services credential,
- Bilingual/cross-cultural specialist credential,
- Designated subjects program supervision and coordination credential,
- Health services credential,
- Pupil personnel services credential in counseling,
- Reading specialist credential,
- School psychologist services credential,
- Special education specialist credential (learning handicapped),
- Special education specialist credential (severely handicapped).

The Department of Graduate Education Programs also is authorized to offer the following:

- Resource specialist certificate.

The school offers a program leading to the Bachelor of Vocational Education degree. Further information about this degree is provided on Page 425.

A Master of Arts degree is offered with options available in elementary education, secondary education, history and English for secondary teachers, reading, counselor education, school administration, special education, bilingual/cross-cultural education and vocational education. A Master of Arts in rehabilitation

counseling is also offered. Inservice course work also is available to personnel currently employed in education or for those interested in learning more about the field. Course work also is offered for the fifth-year, clear credential.

## **BASIC TEACHING CREDENTIALS**

### **MULTIPLE SUBJECT**

#### **Admission to the Program**

Admission to the University must precede admission to the credential program. During the first month of every quarter, all new applicants (juniors, seniors and postbaccalaureate students) interested in entering the program must apply for admission to the School of Education. Special credential advisement meetings are held each quarter to distribute applications, with times and places announced in advance. Students may enroll in Education 200 (Introduction to Careers in Education), Psychology 320 (Psychology of Middle Childhood), Education 330 (Psychological Foundations of Education) and Education 345A (Reading in the Elementary School) without being admitted to the program. Admission to the program is defined as admission to student teaching and is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department.
2. Interview by members of the School of Education and other appropriate faculty.
3. Verification of a negative tuberculin examination within the last 24 months.
4. Audiovisual clearance from the Audiovisual Department.
5. Academic achievement.
  - a. Applicants must possess the following minimum grade-point averages:
    1. Liberal studies majors will be held to the 50th percentile (2.77 at California State University, San Bernardino) for their cumulative undergraduate GPA for the next three academic years (1986–89).
    2. Candidates with a major other than liberal studies will be held to the 50th percentile equivalent for the cumulative undergraduate GPA for that major at California State University, San Bernardino or 2.6, whichever is higher, for the next three academic years (1986–89).
    3. Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of coursework completed at this University only.
    4. 3.0 in professional education course work, with no course grade in this area lower than B—.
  - b. Demonstrate subject matter competence as assessed by the liberal studies faculty.

No candidate may be recommended for the credential who has received a grade of less than C (2.0) in any other course required for the credential, such as Health Science. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.

6. One of the following:
  - a. Completion of the requirements for the liberal studies major as offered at this campus, or an approved diversified major on another campus,

or

- b. Satisfactory completion of the "General Knowledge Section" of the National Teacher Examination Core Battery. (Students who elect this option may choose any major offered at this University.)
7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California.
8. Completion of the upper-division writing requirement at the University or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the M.A. degree.)
9. Submission of evidence that the applicant has passed the California Basic Educational Skills Test.
10. Satisfactory completion of the following prerequisite courses: Education 330 and 345A. (These courses have prerequisites.)

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by an advisor in the School of Education.

During enrollment in Education 200, candidates must file a form indicating an intent to apply for student teaching in a subsequent quarter. One quarter in advance of the time students intend to enroll in student teaching they must complete the application for admission to the program and to student teaching. Students are to ascertain, from the Credentials Office, the deadline for submitting an application. Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and be at least of senior standing. Student teaching for the credential is a full-time assignment for two quarters, and no concurrent course work should be taken beyond the required methods courses.

### **Requirements for the Credential**

Requirements for the multiple subject teaching credential: Education 200, Psychology 320, Education 330, 340, 341, 345A and 411A/B. Course work in professional education must be completed with a grade-point average of 3.0, with no course grade lower than B—. (Students who do not have an approved undergraduate major in liberal studies must successfully complete the "General Knowledge Section" of the National Teacher Examination Core Battery prior to enrollment in Education 411.) One of the following is required to fulfill the United States Constitution requirement: History 200 or 540, Political Science 203, 410 or 411, Social Sciences 146, or successful completion of an examination administered through the University Counseling and Testing Center.

Upon completing the requirements for the baccalaureate degree, subject matter competence, program completion, the U.S. Constitution requirement and two quarters of student teaching, candidates may apply for a preliminary credential. Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division and/or graduate course work beyond the B.A.) and meet the health education and special education requirements to obtain a professional clear credential.

One of the following is required to meet the health education requirement: Health Science 332, 333, 435, 440. One of the following is also required to fulfill the special education requirement: Education 530 or 542, The Exceptional Student. (Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the School of Education.)

## **MULTIPLE SUBJECT—**

### **BILINGUAL/CROSS-CULTURAL EMPHASIS**

#### **Admission to the Program**

Admission to the University must precede admission to the credential program. During the first month of every quarter, all new applicants (juniors, seniors and postbaccalaureate students) interested in entering the program must apply for admission to the School of Education. Credential advisement meetings are held every quarter to distribute applications, with times and places announced in advance. Students may enroll in Education 200 (Introduction to Careers in Education), Psychology 320 (Psychology of Middle Childhood), Education 330 (Psychological Foundations of Education) and Education 345B (Reading in the Elementary School) without being admitted to the program. Admission to the program is defined as admission to student teaching and is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department.
2. Interview by members of the School of Education and other appropriate faculty.
3. Verification of a negative tuberculin examination within the last 24 months.
4. Audiovisual clearance from the Audiovisual Department.
5. Academic Achievement
  - a. Applicants must possess the following minimum grade-point averages:
    1. Liberal studies majors will be held to the 50th percentile (2.77 at California State University, San Bernardino) for cumulative undergraduate GPA for the next three academic years (1986–89).
    2. Candidates with a major other than liberal studies will be held to the 50th percentile equivalent for the cumulative undergraduate GPA for that major at California State University, San Bernardino or 2.6, whichever is higher, for the next three academic years (1986–89).
    3. Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have cumulative GPAs computed for admission with the same standards and on the basis of coursework completed at California State University, San Bernardino only.
    4. 3.0 in professional education course work, with no course grade in this area lower than B—.
  - b. Demonstrate subject matter competence as assessed by the liberal studies faculty.

No candidate may be recommended for the credential who has received a grade of less than C (2.0) in any other course for the credential, such as

Health Science. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.

6. One of the following:

- a. Completion of the requirements for the liberal studies major as offered at this campus, or an approved diversified major on another campus,  
or
  - b. Satisfactory completion of the "General Knowledge Section" of the National Teacher Examination Core Battery. (Students who elect this option may choose any major offered at this University.)
7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California.
  8. Completion of the upper-division writing requirement at the University or the equivalent graduation requirement at another accredited institution, or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the M.A. degree.)
  9. Submission of evidence that the applicant has passed the California Basic Educational Skills Test.
  10. Satisfactory completion of the following prerequisite courses: Education 330 and Education 345B. (Courses have prerequisites.)
  11. Demonstration of competence in oral and written Spanish at level 2 on the Foreign Service Institute (FSI) Proficiency Rating.\*
  12. Knowledge of the culture of the Latino/Chicano population, demonstrated by attaining, through written assessment, level 2 of the criteria for the California Bilingual Certificate of Competence.\*

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by an advisor in the School of Education.

During enrollment in Education 200, candidates must file a form indicating an intent to apply for student teaching in a subsequent quarter.

One quarter in advance of the time students intend to enroll in student teaching they must complete the application for admission to the program and to student teaching. Students are to ascertain, from the Credentials Office, the deadline for submitting an application. Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and be at least of senior standing. Student teaching for the credential is a full-time assignment for two quarters, and no concurrent course work should be taken beyond the required methods courses.

## Requirements for the Credential

Requirements for the multiple subject teaching credential with the bilingual/cross-cultural emphasis: Education 200, Psychology 320, Education 330, 340, 341 or 344, 345B and 411A/B (performed in a recognized bilingual

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\* For information on language and culture examinations, inquire at the School of Education office, PL 521. To be *recommended* for the bilingual emphasis credential, candidates must demonstrate competence at level 3 of the FSI Rating and the California Bilingual Certificate of Competence.

classroom). Course work in professional education must be completed with a grade-point average of 3.0, with no course grade lower than B—. (Students who do not have an approved undergraduate major in liberal studies must successfully complete the “General Knowledge Section” of the National Teacher Examination Core Battery prior to enrollment in Education 411A.) One of the following is required to fulfill the United States Constitution requirement: History 200 or 540, Political Science 203, 410, or 411, Social Sciences 146, or successful completion of an examination administered through the University Counseling and Testing Center.

Upon completing the requirements for the baccalaureate degree, language and cultural examinations, subject matter competence, program completion, the U.S. Constitution requirement, and two quarters of student teaching, candidates may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division or graduate course work beyond the B.A.) and meet the health education and special education requirements to obtain a professional clear credential.

One of the following is required to meet the health education requirement: Health Science 332, 333, 435, 440. One of the following is also required to fulfill the special education requirement: Education 530 or 542, The Exceptional Student. (Note: Pending state legislation may require curricular changes. Students must consult the current information sheet for this credential in the School of Education.)

## **SINGLE SUBJECT**

### **Admission to the Program**

Admission to the University must precede admission to the credential program. During the first month of every quarter, all new applicants (juniors, seniors and postbaccalaureate students) interested in entering the program must apply for admission to the School of Education. Special credential advisement meetings are held each quarter to distribute applications, with times and places announced in advance. Students may enroll in Education 200 (Introduction to Careers in Education), Psychology 328 (Psychology of Adolescent Development), Education 330 (Psychological Foundations of Education) and Education 440 (Secondary Curriculum and Instruction I) without being admitted to the program. Admission to the program is defined as admission to student teaching and is based on the following criteria:

1. Three written recommendations, at least two from faculty members in the student's major department.
2. Interview by members of the School of Education and other appropriate faculty.
3. Verification of a negative tuberculin examination within the last 24 months.
4. Audiovisual clearance from the Audiovisual Department.
5. Academic Achievement
  - a. Applicants must possess the following minimum grade-point averages:
    1. Single subject majors will be held to the 50th percentile equivalent for California State University, San Bernardino majors for their cumulative undergraduate GPA. A list of the required GPAs is available from

the Credentials Office, the department chair in Education, the department chair in that major, and any single subject advisor in education.

2. Candidates with a major other than the single subject field in which they plan to student teach will be held to the 50th percentile equivalent for that major at California State University, San Bernardino for their cumulative undergraduate GPA or 2.6, whichever is higher, for the next three academic years (1986–89).
3. Transfer candidates who complete 45 or more units as an undergraduate at California State University, San Bernardino will have their cumulative GPAs computed for admission with the same standards and on the basis of course work completed at California State University, San Bernardino only.
4. 3.0 in prerequisite course work with no course grade in this area lower than B—.
- b. Demonstrate subject matter competence as assessed by the faculty of the appropriate single subject teaching major department.

No candidate may be recommended for the credential who has received a grade of less than C (2.0) in any other course required for the credential, such as Health Science. In the case of a repeated class, only the highest grade the student has received will be considered for the purpose of this requirement.

6. a. Completion of one of the following degree programs at this University:

*Single Subject Credential*

Art  
English  
Foreign Language

Government  
Health Science  
History  
Life Science

Mathematics

Music  
Physical Education  
Physical Science

Social Science

*Degree Major*

B.A. Art (Option I)

B.A. English

B.A. Spanish or

B.A. French

B.A. Political Science

B.S. Health Sciences

B.A. History (Track A)

B.A. Biology

B.S. Biology

B.A. Mathematics

B.S. Mathematics

B.A. Music (Option II)

B.S. Physical Education

B.A. Chemistry

B.S. Chemistry

B.A. Physics

B.S. Physics

B.A. Social Sciences (Track A)

For further information on other majors, supplementary authorizations, examinations and waivers, students should contact the School of Education and/or the appropriate department.

or

- b. Completion of the National Teacher Examination (Specialty Examination) in the Single Subject.
7. Submission of a certificate of clearance issued by the Commission on Teacher Credentialing or evidence of a credential or permit authorizing public school teaching in California.



## 210 / Education

8. Completion of the upper-division writing requirement at the University or the equivalent graduation requirement at another accredited institution or a score of 41 or better on the written portion of the CBEST. (CBEST exam does not meet the upper-division writing requirement for the M.A. degree.)
9. Submission of evidence that the applicant has passed the California Basic Educational Skills Test.
10. Satisfactory completion of the following prerequisite courses: Education 330 and 440. (These courses have prerequisites.)

In addition, the following criteria are used: professional aptitude, personality and character, oral and written language usage, and many-sided interests.

All course work taken at another college, or more than seven years ago, is subject to approval by an advisor in the School of Education.

During enrollment in Education 200, candidates must file a form indicating an intent to apply for student teaching in a subsequent quarter.

One quarter in advance of the time students intend to enroll in student teaching they must complete the application for admission to the program and to student teaching. Students are to ascertain, from the Credentials Office, the deadline for submitting an application. Each applicant is reviewed in terms of all of the above criteria and in addition, each must have completed the prerequisite course work in education and psychology and be at least of senior standing. Student teaching for the credential is a full-time assignment for two quarters, and no concurrent course work should be taken beyond the required methods courses.

### Requirements for the Credential

Requirements for the single subject teaching credential: Education 200, Psychology 328, Education 330, 440, 441 or a course in the candidate's discipline numbered 499 (methods and materials for teaching in a single subject field), 445 and 421A/B. Course work in professional education must be completed with a grade-point average of 3.0, with no course grade lower than B—. One of the following is required to fulfill the United States Constitution requirement: History 200 or 540, Political Science 203, 410 or 411, Social Sciences 146, or successful completion of an examination administered through the University Counseling and Testing Center.

Upon completing the requirements for the baccalaureate degree, subject matter competence, program completion, the U.S. Constitution requirement and two quarters of student teaching, candidates may apply for a preliminary credential.

Within five years candidates must complete a fifth year of study (45 quarter hours of approved upper-division and/or graduate course work beyond the B.A.) and meet the health education and special education requirements to obtain a professional clear credential.

One of the following is required to meet the health education requirement: Health Science 332, 333, 435, 440. The special education requirement is met by the following regular course work in the program: Education 330, 421A/B, 440 and 445. However, any single subject student who has not taken the complete series of courses at this University since the beginning of the winter quarter 1979 can fulfill the special education requirement by taking one of the following: Education 530 or Education 602, Exceptional Student. (Note: Pending state legis-

lation may require curricular changes. Students must consult the current information sheet for this credential in the School of Education Office.)

## **DESIGNATED SUBJECTS**

### **(Vocational and Adult Education)**

#### **Admission to the Program**

Admission to the University must precede admission to the credential program. The primary requirement for admission to the designated subjects teaching credential program is appropriate, documented, paid work experience. A candidate for this credential program must have five years of full-time paid work experience in the vocation, occupation, trade or profession that he/she wants to teach. Appropriate education may be substituted for part of that five years. Persons with less than five years of work experience may take the course work for this program, but will not be eligible to apply for the preliminary credential until they have accumulated the required work experience and (for those applying for full-time credentials) have completed an approved course dealing with the U.S. Constitution. The only other requirement for admission to the program is the absence of any felony convictions.

#### **Requirements for the Credential**

In addition to reviewing the requirements listed below, credential applicants should check with the designated subjects credential analyst in the School of Education for the most current specific information about credentialing requirements.

*Part Time Credentials:* Applicants for the clear part-time designated subjects teaching credential (vocational or adult) must successfully complete Education 501. Applicants must also actually teach part time under the preliminary credential.

*Full Time Credentials:* Applicants for the clear full-time designated subjects teaching credential (vocational or adult) must successfully complete Education 501, Education 502, Education 503 and meet requirements relative to knowledge of drug/alcohol abuse and nutrition through one of the following: Health Science 332, 333, 435, 440. Applicants must also actually teach full time under the preliminary credential.

**NOTE:** The Education 501, 502 and 503 courses required for the designated subjects teaching credential may also be used to meet professional education course work requirements for the community college teaching credential. Anyone who is interested in a designated subjects teaching credential and/or a community college teaching credential should plan to take Education 501 as soon as possible.

For information concerning the Bachelor of Vocational Education, see Page 425.

## **SPECIALIST AND SERVICES CREDENTIALS**

The following programs are offered through the Department of Special Programs in the School of Education:

- Adapted physical education specialist
- Administrative services
- Bilingual/cross-cultural specialist
- Health services
- Pupil personnel services (counseling)
- Reading specialist
- School psychologist services
- Special education specialist: learning handicapped
- Special education specialist: severely handicapped
- Supervision and coordination of designated subjects programs

Most of these credentials are designed to complement a corresponding option in the M.A. program. Although admission requirements are different for each special program, with the exception of the pupil personnel services credential and the health services credential, all of the specialist and services credential programs require a basic teaching credential or teaching experience.

With the exception of the school psychologist services credential, candidates are required to maintain a 3.0 grade-point average throughout the program sequence. The school psychologist services credential requires a 3.5 grade-point average.

## **ADAPTED PHYSICAL EDUCATION SPECIALIST**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the adapted physical education specialist credential program requires the following:

1. A valid California teaching credential authorizing the teaching of physical education.

### **Requirements for the Credential**

Requirements for the adapted physical education specialist credential: Education 530, Physical Education 330 and 10 units selected from Physical Education 331A,B,C,D,E.

## **ADMINISTRATIVE SERVICES (Preliminary)**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the administrative services credential program requires the following:

1. A valid California teaching or pupil personnel or health services credential. (The administrative services credential requires an appropriate credential and three years of school-related experience.)
2. A 3.0 grade-point average in all course work taken in education.

3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.
4. Verification of completion of California Basic Educational Skills Test for diagnostic purposes.

### **Recommendation for the Credential**

To be eligible to be recommended for the credential, a candidate must:

1. Complete the Commission on Teacher Credential competencies dealing with mainstreaming of special education students.
2. Obtain a recommendation from the program committee.
3. Successfully complete the California Basic Educational Skills Test.

### **Requirements for the Credential**

Requirements for the administrative services credential: Education 651, 654, 659, 669, 673, 676, 679D (for a total of 7½ units).

## **BILINGUAL/CROSS-CULTURAL SPECIALIST**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the bilingual/cross-cultural specialist credential program requires the following:

1. A valid teaching credential or teaching experience.
2. A 3.0 grade-point average in all course work taken in education and in all bilingual/cross-cultural areas.
3. Three letters of recommendation, at least one from a school supervisor or administrator, to be evaluated by faculty members in the program.
4. Demonstration of competence in oral and written Spanish at Level 3 on the Foreign Service Institute (FSI) Proficiency Rating.
5. Written evaluations by three professors in courses taken in the program, submitted to the coordinator of the program.

### **Requirements for the Credential**

Requirements for the bilingual/cross-cultural specialist credential: Education 536, 606, 607, 608, 679A (for a total of 5 units), History 391, Interdisciplinary Studies 460, Spanish 415, and 5 units of electives. Acceptable as electives are: Art 328, 329, Anthropology 460, Education 624, Foreign Language 450 (or Spanish 450), History 390, 565, Humanities 460, Music 351, Political Science 351, Sociology 410, 442, and Spanish 302, 440.

## **HEALTH SERVICES**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the health services credential program requires the following:

1. A current California Registered Nurse license.
2. Three letters of recommendation.

## **214 / Education**

3. Valid preliminary Health Services credential.

### **Recommendation for the Professional Credential**

In order to be recommended for a credential, the student must have:

1. Completed all of the prescribed course work with a grade-point average of 3.0 or better.
2. Completed the School of Education's audio-visual requirement.
3. Recommendation from the program committee.
4. Two years successful experience as a school nurse.

### **Requirements for the Credential**

Requirements for the health services credential: Education 440, 530, 603, Health Science 332, 333, 336, 363, 374, 451, 474, Nursing 356, 357, 358 and 359.

## **PUPIL PERSONNEL SERVICES**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the pupil personnel services credential program requires the following:

1. Completion of Education 531 with a grade of B (3.0) or better.
2. Three recommendations from persons having knowledge of the applicant's counseling potential, to be submitted before completion of Education 531.
3. Application form and self-disclosure statement, to be submitted before completion of Education 531.
4. A 3.0 grade-point average in all course work taken in education.
5. Verification of completion of California Basic Educational Skills Test for diagnostic purposes.

### **Requirements for the Credential**

Requirements for the pupil personnel services credential: Education 530, 531, 619, 650, 652, 653, 655, 656, 657A/B, 677 and 679B (for a total of 5 units) and successful completion of the California Basic Educational Skills Test.

## **READING SPECIALIST**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the reading specialist credential program requires the following:

1. A valid teaching credential or teaching experience.
2. A 3.0 grade-point average in all course work taken in education.
3. Three letters of recommendation: one from the candidate's school principal, one from a fellow teacher and one from a college professor of a graduate-level course taken within the last three years. These letters will be evaluated by faculty members in the program.

### **Recommendation for the Credential**

In order to be recommended for a credential, the student must have:

1. Completed all of the prescribed course work with a grade-point average of 3.0 or better.
2. Verified that all competencies have been met.
3. Verified two years of full-time teaching, including the teaching of reading.
4. Obtained a letter of recommendation from the reading program faculty.

### **Requirements for the Credential**

Requirements for the reading specialist credential: Education 611 for a total of 5 units, Education 612, 613, 614, 620, 622, 624, 625, 628, 629 (for a total of 5 units), 631, and 679C.

## **SCHOOL PSYCHOLOGIST SERVICES**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the school psychologist services credential program requires the following:

1. A valid California pupil personnel services credential.
2. Completion of an interview with two faculty members to assess competence in interpersonal skills.
3. A 3.5 grade-point average in all previous graduate work.
4. Verification of completion of California Basic Educational Skills Test for diagnostic purposes.

No more than 20 units toward this credential may be taken prior to admission to the program.

### **Recommendation for the Credential**

In order to be recommended for a credential, the student must have:

1. Completed all of the prescribed course work with a grade-point average of 3.5 or better.
2. Completed one year of related work experience.

### **Requirements for the Credential**

Requirements for the school psychologist services credential: Education 647, 648, 660, 665, 681, 686, 687, 689A/B/C, 693, Psychology 387 and 391.

## **SPECIAL EDUCATION SPECIALIST**

### **(Learning Handicapped)**

### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the special education specialist credential program (learning handicapped) requires the following:

1. A valid teaching credential or evidence of full-time teaching experience.
2. A 3.0 grade-point average in all course work taken in education.

### **Requirements for the Credential**

Requirements for the special education specialist credential (learning handicapped): Education 530, 532, 535, 625, 644, 679E (for a total of five units), 681,

## **216 / Education**

683, 684A, 684B and five units of electives. Acceptable as electives are: Education 531, 624, 631 or other courses chosen in consultation with an advisor.

### **SPECIAL EDUCATION SPECIALIST**

**(Severely Handicapped)**

#### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the special education specialist credential program (severely handicapped) requires the following:

1. A 3.0 grade-point average in all course work taken in education.
2. Three letters of recommendation, to be evaluated by faculty members in the program.
3. Completion of Education 530 and 532 with grades of B (3.0) or better.
4. A valid California basic teaching credential.

#### **Requirements for the Credential**

Requirements for the special education specialist credential (severely handicapped): Education 530, 532, 535, 668A/B/C/D, 681, 688, 679G and five units of electives approved by the special education coordinator.

### **SUPERVISION AND COORDINATION OF**

### **DESIGNATED SUBJECTS PROGRAMS**

#### **Admission to the Program**

In addition to meeting the general requirements of the University for admission as a postbaccalaureate student, admission to the supervision and coordination of designated subjects programs credential requires the following:

*Vocational Program:*

1. Possession of or eligibility for a clear designated subjects teaching credential or equivalent.
2. Three years of full-time classroom teaching experience (or its equivalent) in the subject title on the teaching credential.

*Nonvocational Program:*

1. Possession of or eligibility for a clear designated subjects teaching credential or equivalent.
2. A high school diploma (or equivalent) plus five years of full-time work experience,

or

a baccalaureate degree including 12 semester units of course work related to the subject to be taught.

#### **Requirements for the Credential**

Requirements for the supervision and coordination of designated subjects programs credential: Education 507, 508, 509 and 510 and successful completion of the California Basic Educational Skills Test.

## **SPECIALIST CERTIFICATE**

### **RESOURCE SPECIALIST CERTIFICATE**

#### **Admission to the Certificate Program**

Admission to the University must precede admission to the certificate program.

1. A baccalaureate degree from an accredited college.
2. A valid special education teaching credential.
3. A cumulative grade-point average of 2.6 in the last 90 quarter units and a 3.0 in all course work taken in education.
4. Education 530 or its equivalent; and a minimum of 20 credit hours in special education.

#### **Requirements for Completion of the Certificate**

1. \* † Education 630. Topics in Research in Teaching and Learning  
 \* Education 646. The Resource Specialist in Special Education  
 \* Education 679H. Fieldwork: Resource Specialist (for 5 units)  
 \* Education 683. Case Work in Teaching the Learning Handicapped
2. A special education specialist credential
3. Three years of teaching experience to include full time teaching in both the regular classroom and the special education classroom.

## **MASTER OF ARTS IN EDUCATION**

The Master of Arts programs in elementary and secondary education developed by the University reflect the curricular and educational changes of the past decade and are designed to meet the needs of teachers who desire greater content knowledge as well as new methods of creating a child-centered educational environment. These programs seek to increase the teaching effectiveness of elementary and secondary teachers already in the classroom, to help them upgrade their skills, and to prepare them to serve as leaders in various district curriculum projects and as project directors in federally funded programs. The M.A. graduate should emerge with new skills in carrying out and evaluating educational experimentation. These options are open to individuals who hold a valid teaching credential or to applicants with teaching experience.

The M.A. in education with an emphasis on counseling trains individuals to work at all levels—elementary through junior college. The program, which is competency based, gives each graduate student the opportunity to acquire the specific skills needed to become an effective counselor. An important facet of the program is to prepare individuals for cross-cultural counseling and for working with other specialized groups. Neither a credential nor teaching experience is necessary to work toward the M.A. option in counseling.

Through the option in school administration, individuals will be prepared for leadership roles in school administration, school business management and supervision of instruction.

The M.A. in education with an option in reading meets the needs of the candidate who is interested in increasing skills in the effective teaching of reading.

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\* Course has a prerequisite.

† Acceptable only when the topic is special education.



The program is competency based and places emphasis on the models and methods that enhance the development of attitudes and skill acquisition for the reader.

The M.A. in education with an option in bilingual/cross-cultural education is designed to give advanced training to personnel involved in bilingual programs in grades K–12. The program should also meet the needs of community college personnel who are involved in the training of classroom aides and other para-professionals.

The M.A. in education with an option in special education will provide advanced preparation for teaching the learning handicapped, and will provide training for those persons interested in administrative positions or leadership positions in special education.

The option in vocational education is designed to provide advanced and specialized education to personnel working in a variety of settings related to vocational education such as secondary, post-secondary and private schools. The program should also meet the requirements for leadership positions in these facilities.

### **M.A.—BILINGUAL/CROSS-CULTURAL OPTION**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A GPA of at least 2.5 in the last 90 quarter units and a 3.0 in all bilingual/cross-cultural courses;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

### **Advancement to Candidacy**

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Satisfactorily completed Education 603 and 695;
3. Completed, with a GPA of 3.0, 15 quarter units of course work, at least 10 of which must have been on this campus and approved by an advisor in the School of Education;

*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*

4. Secured approval of candidacy from the School of Education;
5. Demonstrated proficiency in Spanish;
6. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the associate dean of graduate programs.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, with a minimum of 32 units completed in residence at this University.
2. A minimum of 22 quarter units taken after the student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements, and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of Education 610 and Education 600, or Education 644 and a comprehensive examination in bilingual/cross-cultural education.
5. A minimum of 25 units in courses numbered 600 or above included as part of the approved program.
6. Successful completion of Education 697 within the last 7½ units of course work.
7. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination in bilingual/cross-cultural education.

Students who elect to complete a project must register for Education 610 and Education 600 and these units may be part of the required 45 units.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of bilingual/cross-cultural education, rather than subject matter of courses taken. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

## 220 / Education

### Requirements for the Degree

Requirements for the option in bilingual/cross-cultural education include: Education 603, 695, and 697; and 35 units of required and elective courses distributed as follows:

*Students choosing the master's project:* Education 600, 606, 608, 610, Spanish 415, and 10 units of electives.

*Students choosing the comprehensive examination:* Education 606, 608, 644, Spanish 415, and 15 units of electives.

*Approved electives:* Anthropology 460, Art 328, 329, Education 536, 607, History 390, 391, 565, 566, Humanities 460, Interdisciplinary Studies 460, Music 351, Political Science 351, Psychology 347, Sociology 342, 410, and Spanish 440.

### M.A.—COUNSELOR EDUCATION OPTION

#### Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. Completion of Education 531 with a grade of B (3.0) or better;
2. Three recommendations from persons having knowledge of the applicant's counseling potential, to be submitted before completion of Education 531;
3. Application form and self-disclosure statement, to be submitted before completion of Education 531;
4. A 3.0 GPA in all course work taken in education.

Students who do not meet all of the above criteria will be interviewed by at least two members of the counseling education faculty and may be admitted conditionally. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

#### Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Completed Education 603 and 695;
3. Completed, with a GPA of 3.0, 15 quarter units of course work, at least 10 of which must have been on this campus and approved by an advisor in the School of Education;

*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*

4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the school and the associate dean for graduate programs.

#### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, with a minimum of 32 units completed in residence at the University;

2. A minimum of 22 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements, including a minimum grade of B (3.0) in the prerequisite course, Education 531 and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of a written and an oral comprehensive examination;
5. Successful completion of Education 697 within the last 7½ units of course work;
6. Any additional general requirements not cited above and listed on Page 94.

The written and oral comprehensive examination is designed to test the student's knowledge of the field of counselor education. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### **Requirements for the Degree**

Requirements for the option in counselor education: Education 531; Education 603, 695, 697; and 35 additional units of required courses as follows: Education 619, 652, 656, 657A/B, 677 and 679B (for a total of five units).

## **M.A.—ELEMENTARY EDUCATION OPTION**

### **Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

### Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Completed, with a GPA of 3.0, at least 15 quarter units of applicable course work in graduate standing, at least 10 of which have been taken at this campus and approved by an advisor in the School of Education;  
*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*
3. Satisfactorily completed Education 603 and 695;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the associate dean of graduate programs.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable course work, with a minimum of 32 completed in residence at this University.
2. A minimum of 22 quarter units taken after the student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of Education 600 *or* the passing of a comprehensive examination in elementary education.
5. A minimum of 25 units in courses numbered 600 or above included as part of the approved graduate program.
6. Successful completion of Education 697 within the last 7½ units of course work.
7. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination in elementary education.

Students who elect to complete a project must register for Education 600; these units may be part of the required 45 units.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of elementary education, rather than subject matter of courses taken. The examination is offered once each quarter.

Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### Requirements for the Degree

Requirements for the option in elementary education include: Education 603, 695, 697; and 35 units of required and elective courses distributed as follows:

*Students choosing the master's project:* Education 600, 604A,B,C,D or E (for a total of 5 units), 609A,B,C,D or E, 610 or 644, 640 and 10 units of approved courses in one of the following areas:

- A. Mathematics—Mathematics 302 and *either* Mathematics 499 *or* approved mathematics course elective
- B. Science—Approved science course electives
- C. Social Studies—Approved social studies course electives (anthropology, economics, geography, history, political science, psychology, social sciences or sociology)
- D. Language Arts—English 311 and *either* Humanities 499C *or* approved English course elective
- E. Fine Arts—Art 395, Music 531, Theatre Arts 481 or approved fine arts course electives

(Consult an advisor in the School of Education for approved course electives in the above areas.)

*Students choosing the comprehensive examination:* Education 604A,B,C,D or E (for a total of 5 units), 609A,B,C,D or E, 610 or 644, 640 and 10 units of approved courses in one of the following areas:

- A. Mathematics—Mathematics 302 and *either* Mathematics 499 *or* approved mathematics course elective
- B. Science—Approved science course electives
- C. Social Studies—Approved social studies course electives (anthropology, economics, geography, history, political science, psychology, social sciences or sociology)
- D. Language Arts—English 311 and *either* Humanities 499C *or* approved English course elective

(Consult an advisor in the School of Education for approved course electives in the above areas.) Five additional units of electives are also required. These five elective units must be chosen from 500–600 level education course offerings with advisor approval.

**M.A.—READING OPTION****Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

**Advancement to Candidacy**

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Satisfactorily completed Education 603 and 695;
3. Completed, with a GPA of 3.0, 15 quarter units of course work at least 10 of which must have been on this campus and approved by an advisor in the School of Education;  
*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the associate dean of graduate programs.

**Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable work, with 32 completed in residence at this University.
2. A minimum of 22 quarter units of credit taken after a student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of Education 697 within the last 7½ units of course work.
5. Successful completion of one of the following:
  - a. Written comprehensive examination;
  - b. Education 600. Master's Degree Project;
  - c. Education 628. Special Projects in Reading

Students who elect to complete a project will register for Education 600 or 628 and these units may be part of the required 45 units. Students who take

the comprehensive examination will select, with their advisor, an appropriate elective.

6. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available in the M.A. Handbook available in the Bookstore. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of reading rather than the subject matter of courses taken. The examination is offered once each quarter including summer. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### **Requirements for the Degree**

Requirements for the option in reading include: Education 603, 695, 697; and 35 units of required and elective courses distributed as follows:

*Students choosing the master's project:* Education 600, Education 611 for a total of 5 units, Education 612, 613, 620, 622, 625 and 631.

*Students choosing the comprehensive examination:* Education 611 for a total of 5 units, Education 612, 613, 620, 622, 625, 631, and 5 units of electives. Acceptable as electives are: Art 395, Education 532, 536, 614, 624, 641, English 320, 500, 505 and Theatre Arts 481 or others upon consent of advisor.

*Students choosing the special project (Education 628):* Education 611 for a total of 5 units, Education 612, 613, 620, 622, 625, and 631.

### **M.A.—SCHOOL ADMINISTRATION OPTION**

#### **Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:



## 226 / Education

1. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
2. A valid teaching or service credential or evidence of full-time teaching or service experience;  
*(Note: For the administrative services credential three years of full-time teaching is required; substitute teaching does not apply.)*
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

Normally, a student is expected to be working concurrently for a credential in school administration.

### Advancement to Candidacy

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Completed, with a GPA of 3.0, 15 quarter hours of course work, at least 10 of which must have been on this campus and approved by an advisor in the School of Education;  
*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*
3. Satisfactorily completed Education 603 and 695;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the school and the associate dean of graduate programs.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable work, with 32 completed in residence at this University;
2. A minimum of 22 quarter units of credit taken after a student has been advanced to candidacy for the degree;
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
4. Successful completion of both an oral and written comprehensive examination *or* completion of a master's degree project. Students who elect to complete a project will register for Education 600; these units may be part of the required 45 units;
5. Successful completion of Education 697 within the last 7½ units of course work.
6. Any additional general requirements not cited above and listed on Page 94.

The written and oral comprehensive examination is designed to test the student's knowledge of the field of school administration. The examination is of-

ferred once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

### **Requirements for the Degree**

Requirements for the option in school administration include: Education 603, 673, 695, 697; and 30 units of required and elective courses distributed as follows:

*Students choosing the master's project:* Education 600 and 25 units of electives.

*Students choosing the comprehensive examination:* 30 units of electives.

*Approved electives:* Education 610, 651, 654, 659, 669, 676 and 679D.

## **M.A.—SECONDARY EDUCATION OPTION**

### **Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. A cumulative grade-point average of 3.0 (B) in all courses taken in education;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

### **Advancement to Candidacy**

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, with a GPA of 3.0, at least 15 quarter units of applicable course work in graduate standing, at least 10 of which have been taken at this campus and approved by an advisor in the School of Education.

*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*

3. Satisfactorily completed Education 603 and 695;
4. Secured approval of candidacy from the School of Education;

5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the associate dean of graduate programs.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, with a minimum of 32 completed in residence at this University.
2. A minimum of 22 quarter units taken after the student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of Education 610 and Education 600 or the passing of a comprehensive examination in secondary education and successful completion of Education 610 or 644. The project, part of a course or courses other than independent study, normally in the candidate's teaching area, can be reported in the form of a paper or other media. The project must be approved by the instructor and the advisor and submitted in the approved format.
5. A minimum of 25 units in courses numbered 600 or above included as part of the approved graduate program.
6. Successful completion of Education 697 within the last 7½ units of course work.
7. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination in secondary education.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of secondary education, rather than subject matter of courses taken. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of grad-

uate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### Requirements for the Degree

Requirements for the option in secondary education include: Education 603, 695, 697; and 35 units of required and elective courses distributed as follows:

*Students choosing the project:* Education 602 (10 units), 610, 699 and 15 units of electives. The project, part of a course or courses other than independent study, normally in a candidate's teaching area, can be reported in the form of a paper or other media. The project must be approved by the instructor and the advisor and submitted in the approved format.

*Students choosing the comprehensive examination:* Education 602 (10 units), 610 or 644, 699 and 15 units of electives.

*Electives:* These units must be upper division or above, outside of the School of Education, selected with the approval of an advisor, normally in the candidate's teaching area(s).

## M.A.—HISTORY AND ENGLISH OPTIONS

### (Secondary Education)

#### Admission to the Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or teaching experience;
2. An undergraduate major in English or history;
3. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Change to classified standing can be made only with approval of the School of Education and the Department of English or History. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

#### Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed at least 15 quarter units of acceptable course work at this University, with the approval of the advisors and with a minimum grade-point average of 3.0. At least 5 units must be in English or history and  $7\frac{1}{2}$  units in education;

*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*

## 230 / Education

3. Satisfactorily completed Education 603 and 695;
4. Secured the approval of candidacy from the School of Education and the Departments of English or History;
5. Completed both the aptitude test and the advanced test in English or history of the Graduate Record or an equivalent examination with acceptable scores;
6. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with advisors in the School of Education and in the Departments of English or History and approved by both the school and the department and the associate dean of graduate programs.

Each student will have an advisor from the School of Education and one from either the Department of English or History. Dual signatures are necessary for initial registration for the fall quarter.

### Requirements for Graduation

1. A minimum of 45 quarter units of acceptable graduate-level work, with 32 completed in residence at this University.
2. At least 25 quarter units of credit taken after a student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Five specified courses in education; five courses either in English or in history.
5. One project, part of an appropriate history or English course other than independent study, which can be reported in the form of a paper or other media. The project must be approved by the instructor and the advisor and submitted in the approved format.
6. Successful completion of Education 697 within the last 7½ units of course work.
7. Any additional general requirements not cited above and listed on Page 94.

Students will be encouraged to use a variety of media in presenting projects. The purpose of the project requirement is for the student to communicate ideas gathered in research, experimentation and creative endeavors; therefore, students should not feel bound to traditional forms. Each project will be planned with the cooperation of the professor concerned.

The program may not include more than 13 quarter units in extension and transfer credit from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### Requirements for the Degree

Requirements in education for the English and history options: Education 603, 610, 695, 697 and 699.

Requirements for the English option: English 500 *or* 505; English 611 and 650. Two upper-division courses in English are also required, chosen with the advisor's approval.

Requirements for the history option: five courses in history chosen from among the following: History 500, 513, 535, 540, 555, 556, 560, 565, 566 and 589.

However, any other upper-division course in history (300 level and above) may be substituted with the advisor's approval.

## **M.A.—SPECIAL EDUCATION OPTION**

### **Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid teaching credential or evidence of full-time teaching experience;
2. A 3.0 GPA in all course work taken in education;
3. Satisfactory completion of Education 530;
4. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

### **Advancement to Candidacy**

In order to be advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed the following course work in education with a 3.0 GPA: Education 532, 603, 610 or 644, and 695;  
*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*
3. Secured approval of candidacy from the School of Education;
4. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the dean of the School of Education and the associate dean of graduate programs.

### **Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable work, with 32 units completed in residence at this University.
2. A minimum of 22 quarter units of credit taken after a student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of either Education 600 and Education 610 or Education 644 and the comprehensive examination in special education.
5. Successful completion of Education 697 within the last 7½ units of course work.
6. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be ap-

proved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of a specific field, rather than subject matter of courses taken. The examination is offered once each quarter. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions before permission to take the examination can be granted. Students who do not receive a passing score may petition the School of Education to retake the examination or any part of it. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

## **Requirements for the Degree**

Requirements for the option in special education: Education 530, 532, 535, 603, 681, 695 and 697; plus 20 units chosen from the following special education course work: (Students wishing to pursue a learning handicapped, severely handicapped or physically handicapped credential in conjunction with this option should consult their advisor for proper choice of courses.) Education 625, 626, 644, 668A, 668B, 668C, 668D, 668E, 683, 684A, 684B and 688; plus five units chosen from: Education 600, 630 or a comprehensive examination and five units of elective.

## **M.A.—VOCATIONAL EDUCATION OPTION**

### **Admission to the Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A valid vocational teaching credential;
2. Three letters of recommendation, one from the school where the candidate has most recently taught or is currently teaching, to be evaluated by faculty members in the program.

Students who do not meet these criteria may be admitted as conditionally classified graduate students. Students admitted in this category may be changed to

classified standing with approval of the School of Education. No more than 20 quarter units may be used to demonstrate fitness to complete the program.

### **Advancement to Candidacy**

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified standing;
2. Completed, with a GPA of 3.0, 15 quarter units of course work at least 10 of which must have been on this campus and approved by an advisor in the School of Education;  
*(Note that between the time of completing 15 units and 23 units of applicable course work the student is required to apply for advancement to candidacy.)*
3. Secured approval of candidacy from the School of Education;
4. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and the associate dean of graduate programs;
5. Satisfactorily completed Education 603 and 695.

### **Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable work, with 32 completed in residence at this University.
2. A minimum of 22 units of credit taken after a student has been advanced to candidacy for the degree.
3. A GPA of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program.
4. Successful completion of a master's degree project and registration in Education 600.
5. Successful completion of Education 697 within the last 7½ units of course work.
6. Any additional general requirements not cited above and listed on Page 94.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The program may not include more than 13 quarter units in approved extension and transfer courses from other colleges. California State University, San Bernardino will not consider for transfer credit course work from an institution which will not accept that work in its own advanced degree program.

### **Requirements for the Degree**

Requirements for the option in vocational education include: Education 603, 695, 697; 25 units of required courses: Education 600, 610, 637, 638, 639; and 10 units of electives in specialized areas.



## 234 / Education

The 10 units of electives are to be chosen from one of the following areas of emphasis in consultation with an advisor:

- A. Emphasis in coordination and supervision of designated subjects or administration—Education 507, 508, 509 and 510 *or* Education 673. (Education 673 can only be taken if Education 507, 508, 509 and 510 have been successfully completed in an undergraduate program.)
- B. Emphasis in curriculum—Education 602 (to be taken twice; the topic career education is acceptable or other topics selected with the consent of the coordinator) and 699.
- C. Emphasis in counseling and guidance—Education 531, 650, 653.
- D. Emphasis in special education—Education 530, 532, 644, 682.

### M.A.—REHABILITATION COUNSELING

The School of Education offers a M.A. in rehabilitation counseling. Refer to Page 395 for details of this program.

### Certificate Programs

The School of Education offers certificate programs in educational computing, education of the gifted and talented, educational technology, reading for the classroom teacher, rehabilitation counseling, and school business management. Details concerning these programs are found beginning on Page 103.

#### 200. INTRODUCTION TO CAREERS IN EDUCATION

Perspectives on public school teaching for potential elementary and secondary teachers. A minimum of 10 hours per quarter of guided field experience at an approved setting is required. (2½ units)

#### 302. EDUCATION IN AMERICAN SOCIETY

Politics, organization, structure and philosophical concepts of schooling and education including an analysis of significant problems and issues in American education. Open to students in all majors. (5 units)

#### 330. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

Learning, motivation, evaluation, and human growth and development as applied to teaching. A minimum of 24 hours per quarter of field experience at an approved setting is required. *Prerequisites:* Education 200 and Psychology 320 for multiple subject program; Education 200 for single subject program. (5 units)

#### 335. INTRODUCTION TO VOCATIONAL EDUCATION

Survey of the history, philosophy, literature and organizations of vocational education. (5 units)

#### 340. ELEMENTARY CURRICULUM AND METHODS I

Introductory course in elementary curriculum and basic teaching techniques with emphasis on mathematics and science. *Prerequisite:* Education 330. Must be taken concurrently with student teaching. (5 units)

#### 341. ELEMENTARY CURRICULUM AND METHODS II

Introductory course in elementary curriculum and basic teaching techniques with emphasis on social science and language arts. *Prerequisite:* Education 330. Must be taken concurrently with student teaching. (5 units)

#### 344. CURRICULUM AND METHODS FOR BILINGUAL/CROSS-CULTURAL EDUCATION

Bilingual/cross-cultural teaching strategies and materials development. Emphasis on teaching language arts in Spanish, ESL and SSL teaching techniques and development of units of study based on

multi-cultural themes and concepts. *Prerequisites: Spanish 302 (or the equivalent) with grade of "C" or better and demonstrated oral competence in Spanish.* To be taken concurrently with student teaching. (5 units)

### 345. READING IN THE ELEMENTARY SCHOOL

Methods of teaching reading in the elementary school including skills in the diagnosis of reading difficulties, organization for instruction, selection of appropriate methods and use of instructional materials. A minimum of 24 hours per quarter of field experience at an approved setting is required.

- A. Multiple Subject *Prerequisites: Education 200 and Psychology 320.* (5 units)
- B. Bilingual *Prerequisite: consent of instructor.* (5 units)

### 411. ELEMENTARY STUDENT TEACHING

Full-time teaching in the public schools. Graded credit/no credit.

- A. Must be taken concurrently with Education 340. *Prerequisite: admission to the program and consent of program coordinator.* (10 units)
- B. Must be taken concurrently with Education 341. *Prerequisite: satisfactory completion of Education 411A and consent of program coordinator.* (10 units)
- C. *Prerequisites: Satisfactory completion of Education 411A and B and consent of program coordinator.* (10 units)

### 421. SECONDARY STUDENT TEACHING

Full-time teaching in the junior or senior high school. Graded credit/no credit.

- A. *Prerequisite: consent of program coordinator.* (10 units)
- B. *Prerequisite: Satisfactory completion of Education 421A and consent of program coordinator.* (10 units)
- C. *Prerequisites: Satisfactory completion of Education 421A and B and consent of instructor.* (10 units)

### 440. SECONDARY SCHOOL CURRICULUM AND INSTRUCTION I

Introductory course in secondary curriculum and teaching methods with emphasis on instructional planning, strategies and evaluation, and classroom management. A minimum of 10 hours per quarter of classroom observations in an approved setting is required. *Prerequisite: Education 330 or concurrent enrollment in Education 330.* (5 units)

### 441. SECONDARY SCHOOL CURRICULUM AND INSTRUCTION II

Introductory course in secondary curriculum and teaching methods with emphasis on subject area materials, mediated materials, secondary curriculum and legal aspects of teaching as a profession. To be taken concurrently with student teaching. *Prerequisite: Education 330.* (5 units)

### 445. TEACHING READING AND WRITING IN SECONDARY SCHOOL SUBJECTS

Methods of diagnosing and teaching specific reading and writing skills in secondary school subjects. A minimum of 24 hours per quarter of field experiences in an approved setting is required. *Prerequisites: Education 200 and Psychology 328.* (5 units)

### 495. EXPOSITORY WRITING FOR EDUCATION

Writing related to education including documented research reports, evaluations and analytical papers. Revision and rewriting will be required. Course fulfills the upper-division writing requirement. May not be counted for fulfilling major requirements for any degree program offered by the School of Education. No more than one of the Expository Writing courses (Education 495, English 495, Humanities 495, Management 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded: A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

### 501. PRINCIPLES AND METHODS FOR TEACHING DESIGNATED SUBJECTS

Application of instructional methodology for designated subjects with emphasis on student performance objectives, lesson planning, teaching methods, educational materials and evaluation techniques. Field experience is included as part of this course. (5 units)

## 236 / Education

### **502. INSTRUCTIONAL SUPPORT FOR TEACHING DESIGNATED SUBJECTS**

Examination of instructional support for designated subjects with emphasis on program advisory committees, student placement, facilities planning, budgeting, student organizations, public relations, career advancement and educational philosophy. *Prerequisite: Education 501 or consent of instructor.* (5 units)

### **503. CONTEMPORARY ISSUES IN TEACHING DESIGNATED SUBJECTS**

Examination of contemporary issues in designated subjects with emphasis on individual education plans, basic skills, school law, multicultural activities, special needs students, safety and performance assessment instruments. *Prerequisite: Education 501 or consent of instructor.* (5 units)

### **504. PRINCIPLES OF ADULT EDUCATION**

History, philosophy and social significance of adult education, especially in California; the adult as a student; the characteristics of successful teachers of adults. (One of two courses required for renewal of the Fisher Bill adult education credential.) (5 units)

### **507. INTRODUCTION TO THE COORDINATION AND SUPERVISION OF DESIGNATED SUBJECTS PROGRAMS**

Topics related to elements and techniques of coordination and supervision of designated subjects programs. *Prerequisite: admission to program and/or consent of coordinator of designated subjects program.* (2½ units)

### **508. ORGANIZATION AND STRUCTURE OF DESIGNATED SUBJECTS PROGRAMS**

Topics related to facility planning: program evaluation, budgeting, school law, funding sources and manpower data. *Prerequisites: admission to program, Education 507 and consent of coordinator of designated subjects program.* (2½ units)

### **509. SUPERVISION AND PERSONNEL MANAGEMENT IN DESIGNATED SUBJECTS**

Topics related to selection, evaluation, development and supervision of personnel in designated subjects programs. *Prerequisites: admission to program, Education 508 and consent of coordinator of designated subjects program.* (2½ units)

### **510. FIELD WORK IN COORDINATION AND SUPERVISION OF DESIGNATED SUBJECTS PROGRAMS**

Supervised field work in coordination and supervision of designated subjects programs. *Prerequisites: admission to program, Education 507, 508, 509, and consent of coordinator of designated subjects program.* (2½ units)

### **511. CONTEMPORARY SCHOOL BUSINESS MANAGEMENT**

Analysis of various approaches to school business administration, current trends, models of organization and management, relationship to county, state and federal agencies, and functions of business management in relation to the size of school districts. *Prerequisite: Management 302 or equivalent.* (5 units)

### **512. SCHOOL FINANCE AND BUDGETING**

Legal considerations in finance and budgeting, evolution of the California school finance program, fiscal relationship to county, state and federal agencies, budget control, school revenues and expenditures, and budgetary procedures and processes. (5 units)

### **513. SCHOOL ACCOUNTS AND RELATED FUNCTIONS**

School fund accounting, attendance accounting, organization and review of student body accounts, state and federal project funding, and certificated and classified payroll laws and regulations pertaining to school accounting procedures. *Prerequisite: Accounting 311 or equivalent.* (5 units)

### **514. SCHOOL BUSINESS MANAGEMENT AND SERVICE FUNCTIONS**

A variable topic course on management and service functions in the school business office. Five units are required for the Certificate in School Business Management. May be repeated for credit as topics change.

A. Purchasing, Warehousing and Inventory (2½ units)

- B. Transportation and Risk Management (2½ units)
- C. Facilities Planning, Construction (2½ units)
- D. Computer Services in Business Functions (2½ units)

### **530. PSYCHOLOGY AND EDUCATION OF EXCEPTIONAL CHILDREN**

Educational implications of physical, intellectual, social and emotional deviations among children and youth. (5 units)

### **531. INTRODUCTION TO COUNSELING**

Experience-based introduction to counseling and its techniques. This course cannot be counted among the 45 units required in the counselor education option in the M.A. program. *Prerequisite: consent of instructor.* (5 units)

### **532. TEACHING THE HANDICAPPED**

Relate characteristics of handicaps to educational procedures and intervention strategies. Practical application of educational and intervention theories with the handicapped. *Prerequisite: Education 530 or consent of instructor.* (5 units)

### **535. COUNSELING EXCEPTIONAL CHILDREN**

Procedures in establishing rapport with handicapped individuals, the control of behavior, counseling techniques and programs for parents of the handicapped. *Prerequisites: Education 530, 532 or consent of instructor.* (5 units)

### **536. TEACHING THE CULTURALLY DIFFERENT**

Cultural democracy and the quest for equal educational opportunity. Methods and teaching techniques for teaching in a multi-cultural setting. Developing cultural awareness of teachers to assist them in relating to and motivating culturally different students. (5 units)

### **538. INTRODUCTION TO TEACHING THE GIFTED AND TALENTED**

Definition, characteristics and development of the gifted and talented individual. Identification procedures. Current legislation and educational practices. *Prerequisite: consent of instructor.* (5 units)

### **539. PROGRAMS FOR TEACHING THE GIFTED AND TALENTED**

Development of school programs for gifted and talented: identification, objectives, scheduling, curriculum, materials, program assessment. *Prerequisites: Education 538 and consent of instructor.* (5 units)

### **541. PROBLEMS IN ELEMENTARY CURRICULUM**

Advanced study of some phase of the elementary school curriculum. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: graduate standing or consent of instructor.* (2–5 units)

### **542. SEMINAR IN EDUCATION**

Intensive study of topics and problems in education. May be repeated for credit as subject matter changes and with consent of instructor. *Prerequisite: graduate standing or consent of instructor.* (2–5 units)

### **543. INDIVIDUALIZED INSTRUCTION**

An individualized course on techniques and procedures for constructing materials, tracking students, classroom management, learning centers, record keeping and media involvement for individualizing instruction at all levels. (5 units)

### **544. CONSTRUCTION OF INSTRUCTIONAL MATERIALS**

Various ways to design and produce instructional materials. Emphasis on use of media to meet instructional objectives. Procedures for systematic evaluation of instructional materials. (5 units)

### **546. MICROCOMPUTERS IN EDUCATION**

Construction of programs for use on a microcomputer. Introduction to course writer languages and comparison of computer capabilities and modes. *Prerequisite: consent of instructor.* (5 units)

## 238 / Education

### 547. EDUCATIONAL TECHNOLOGY

Introduction to instructional systems. Components to include video-disc, satellite down links, computers, brain games and video. Storage and retrieval systems will be included. *Prerequisite: consent of instructor.* (5 units)

### 548. SEMINAR IN INSTRUCTIONAL DESIGN

Theories of instruction; design and production of instructional modules including specification and analysis of objectives, measurement, instructional activities and selection of methods and materials and evaluation techniques. *Prerequisite: consent of instructor.* (5 units)

### 551. COMPUTERS AND LEARNING

Design of courseware and use of computers in education as related to learning theory. *Prerequisites: Education 330 and 546.* (5 units)

### 552. COMPUTERS: CURRICULUM AND INSTRUCTION

Methodology course on teaching with computers, evaluation of courseware and methods of integrating computers in the curriculum. *Prerequisite: Education 546.* (5 units)

### 553. COMPUTERS: DEVELOPMENT OF INSTRUCTIONAL MATERIALS

Systematic approach to development of computer-assisted instruction materials, writing instructional objectives, design of flow charts, knowledge of authoring languages and fundamentals of software and production of courseware. *Prerequisite: Education 546.* (5 units)

### 577. MATHEMATICS CLINIC

Administration of diagnostic instruments and assessment procedures to elementary school students, followed by prescription and initiation of remedial measures to strengthen the mathematics areas. *Prerequisites: Mathematics 301 and five additional quarter units in Mathematics.* (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and school approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 600. MASTER'S DEGREE PROJECT

*Prerequisite: advancement to candidacy.* (5 units)

### 602. SPECIAL TOPICS IN SECONDARY EDUCATION

Exploration, demonstration and application of issues and techniques in selected topics of current concern in secondary education (such as, inquiry-discovery teaching, simulations and games, alternate education programs, consumer education, team teaching, career education, teacher as counselor). May be repeated for credit as topics change. (2½ units)

### 603. INTERPERSONAL RELATIONS AND COMMUNICATIONS IN EDUCATION

Dynamics of interpersonal communication with an emphasis on the characteristics of an individual's participation in small groups within educational structures. This course must be taken during the first 15 units of course work toward the M.A. degree or before advancement to candidacy. (2½ units)

**604. ADVANCED CURRICULAR STUDIES IN ELEMENTARY EDUCATION**

Current and new curricula in elementary school subjects (K-6). Five units are required in the M.A. option in elementary education. May be repeated once in the same subject area. *Prerequisite: teaching credential or consent of instructor.*

- A. Mathematics (2½ units)
- B. Science (2½ units)
- C. Social Studies (2½ units)
- D. Language Arts (2½ units)
- E. Fine Arts (2½ units)

**605. SEMINAR TOPICS IN REHABILITATION COUNSELING**

Current issues in rehabilitation counseling. Seminar topics include research in rehabilitation, case-work management, bilingual issues in rehabilitation and current issues in rehabilitation counseling. May be repeated for credit as topics change. (2½ units)

**606. METHODS AND MATERIALS FOR TEACHING BILINGUAL STUDENTS I**

Bilingual/cross-cultural teaching strategies and curriculum development; methods of integrating English and Spanish in the instructional program; evaluation of language skills, emphasis on social sciences and language arts. *Prerequisite: consent of instructor.* (5 units)

**607. METHODS AND MATERIALS FOR TEACHING BILINGUAL STUDENTS II**

Second language acquisition theory, methods for teaching English as a second language (ESL), development and evaluation of materials for ESL instruction. (5 units)

**608. RESEARCH IN BILINGUAL/CROSS-CULTURAL EDUCATION**

Survey of current measurements and research in bilingual/cross-cultural education and their applications in the classroom. (5 units)

**609. RESEARCH IN ELEMENTARY SCHOOL SUBJECTS**

A review of research in specific subjects of the elementary school curriculum (K-6). May be repeated for credit as topics change.

- A. Mathematics (5 units)
- B. Science (5 units)
- C. Social Studies (5 units)
- D. Language Arts (5 units)
- E. Fine Arts (5 units)

**610. RESEARCH METHODOLOGY IN EDUCATION**

Principles of research design, methods of data collection and analysis. (5 units)

**611. READING COMPREHENSION: TOPICS IN ENHANCING COMMUNICATION SKILLS**

Various techniques in communication skills for enhancing reading comprehension. Course may be repeated as topics change. No more than five units are applicable to the degree. (2½ units)

**612. EVALUATION OF READING TESTS AND MEASUREMENTS**

Use of informal reading inventories, standardized tests and other instruments to assess student performance. *Prerequisites: Education 611 for a total of 5 units, Education 620 and 631.* (2½ units)

**613. RESEARCH METHODOLOGY IN READING**

Review of reading research design, methods of data collection and analysis. *Prerequisites: Education 611 for a total of 5 units, Education 620 and 631.* (2½ units)

**614. PROFESSIONAL SKILLS FOR THE READING SPECIALIST**

Skills and understanding needed to provide curriculum leadership for reading programs. *Prerequisites: Education 611 for a total of 5 units, Education 612, 613, 620, 622, 625 and 631.* (2½ units)

## 240 / Education

### 615. INTRODUCTION TO REHABILITATION COUNSELING

Fundamental processes and practices of rehabilitation counseling including examination and analysis of the historical, philosophical, organizational, economic and legal basis of rehabilitation. Orientation and field visits to community rehabilitation counseling agencies required. *Prerequisite: Education 531 or consent of instructor.* (5 units)

### 616. MULTIPLE ASPECTS OF DISABILITIES

Orientation to community resources providing services to disabled persons. Multiple aspects of disabilities. Implications of disabilities for vocational adjustment and rehabilitation processes. *Prerequisite: Education 655.* (5 units)

### 617. VOCATIONAL ASSESSMENT AND DEVELOPMENT

Survey of methods of vocational assessment of disabled persons. Vocational development theories, occupational and career information systems and psychology of work. *Prerequisites: Education 615, 616, 619 and 656.* (5 units)

### 618. APPLIED JOB PLACEMENT

Survey of methods and techniques of job placement with different client populations in rehabilitation settings. Job analysis, job seeking training skills, placement and follow-up, for rehabilitation clients. *Prerequisites: Education 617, 652 and 656.* (5 units)

### 619. APPRAISAL PROCEDURES IN COUNSELING

Individual and group measurement with emphasis on behavior observation skills, test interpretation in counseling, and an introduction to personality, intelligence, vocational, achievement and projective measurements. *Prerequisite: Education 531 with grade of B (3.0) minimum.* (5 units)

### 620. EFFECTIVE CLASSROOM COMMUNICATIONS

Tools and techniques of effective communication in the classroom. Emphasis on reading strategies. (5 units)

### 622. SELECTION OF READING APPROACHES AND MATERIALS

Making critical judgments in selection of approaches and materials based on historical views of reading. *Prerequisites: Education 611 for a total of 5 units, Education 620 and 631.* (5 units)

### 624. PSYCHOLOGY OF LANGUAGE, THOUGHT AND EXPRESSION

Important aspects of oral language acquisition and development; cuing systems; similarities and differences in oral and written language and implications for instruction. *Prerequisites: Education 611 for a total of 5 units, Education 620, 622 and 631; or consent of instructor.* (5 units)

### 625. READING CLINIC

Laboratory setting for administering diagnostic tests to clients from the community, prescribing appropriate remedies in skills and content areas. *Prerequisites: Education 611 for a total of 5 units, Education 612, 613, 620, 622 and 631.* (5 units)

### 626. CURRICULUM DEVELOPMENT FOR PHYSICALLY HANDICAPPED

Strategies and implications for teaching physically handicapped children and youth in mainstream and special education settings. (5 units)

### 627. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

### 628. SPECIAL PROJECTS IN READING

Research in writing of a curricular project that provides an innovative design for a significant change in a school's reading/language arts program; includes objectives, methodology, recommendations and an abstract. *Prerequisites: Education 611 for a total of 5 units, Education 612, 613, 620, 622, 625 and 631.* (5 units)

**629. SPECIAL TOPICS IN READING**

Relevant issues, techniques and topics in reading. May be repeated for credit as topics change. (2½ units)

**630. TOPICS IN RESEARCH IN TEACHING AND LEARNING**

Survey of current research in teaching and learning. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (5 units)

**631. DEVELOPMENTAL READING**

Overview of developmental reading for the experienced teacher; emphasis on procedures utilized at elementary and/or secondary levels. *Prerequisites: Education 611 and 620.* (5 units)

**637. FOUNDATIONS OF VOCATIONAL EDUCATION**

Historical context, philosophy and development of vocational education. *Prerequisite: consent of coordinator of designated subjects program.* (5 units)

**638. ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS**

Administrative and supervisory procedures in curriculum design, teacher education, staffing, financing, program development, community and articulation procedures. *Prerequisite: consent of coordinator of designated subjects program.* (5 units)

**639. SEMINAR: SYSTEMS AND PROCEDURES IN VOCATIONAL EDUCATION**

Individual and group study of problems and proposed solutions in the systems and procedures in vocational education. *Prerequisites: Education 637, 638 and consent of coordinator of designated subjects program.* (5 units)

**640. ELEMENTARY SCHOOL CURRICULUM**

History, organization and operation of the elementary school; curriculum trends; newer practices in elementary education. *Prerequisite: credential or teaching experience.* (5 units)

**641. MEDIA AND STRATEGIES IN TEACHING**

An assessment of media used in instruction with emphasis on teaching strategies and principles of learning. (5 units)

**644. PROBLEMS IN EDUCATIONAL ASSESSMENT**

Teacher-made tests, standardized tests and other published instruments of use in assessing growth in the affective, psychomotor and cognitive domains. (5 units)

**646. THE RESOURCE SPECIALIST IN SPECIAL EDUCATION**

Development and evaluation of consultation and coordination procedures for the special education resource specialist. *Prerequisites: Education 630 and special education specialist credential or consent of instructor.* (5 units)

**647. INDIVIDUAL TESTING AND CASE STUDY TECHNIQUES I**

Intensive practice in administration and interpretation of Wechsler scales: Wechsler Preschool and Primary Scale of Intelligence, Wechsler Adult Intelligence Scale and Wechsler Intelligence Scale for Children Revised. *Prerequisite: pupil personnel services credential.* (5 units)

**648. INDIVIDUAL TESTING AND CASE STUDY TECHNIQUES II**

Intensive practice in administration and interpretation of Stanford-Binet and selected personality measures with attention to integration of results in case studies. *Prerequisite: pupil personnel services credential.* (5 units)

**649. ORGANIZATIONAL DEVELOPMENT OF REHABILITATION SERVICES**

Various types of training, administration, developmental and job placement programs used in industry, public and private rehabilitation agencies and insurance companies. *Prerequisites: Education 618, 619 and 677.* (5 units)



## 242 / Education

### 650. EDUCATIONAL AND CAREER PLANNING

Theory of occupational choice, labor force data, and implementation and continuation of career advisement programs. (5 units)

### 651. SUPERVISION OF SCHOOL PERSONNEL

Supervision of school personnel including clinical supervision; administration of the master contract, recruitment, selection and evaluation of personnel. *Prerequisite: Education 673.* (5 units)

### 652. DYNAMICS OF HUMAN BEHAVIOR

Theories of human behavior, with attention to physical, psychological, individual and societal processes. *Prerequisite: Education 531 with a grade of B (3.0) minimum.* (5 units)

### 653. THE PROFESSIONAL GUIDANCE WORKER

Ethics and legal aspects of counseling, especially applied to educational settings; utilization of community resources; consultation; in-service training. (5 units)

### 654. SCHOOL CURRICULUM

History and organization of public schools in the United States, including curriculum trends and practices. (5 units)

### 655. CROSS-CULTURAL COUNSELING

Examination of diversity of cultural ethnic experiences and the nature of prejudice. Consideration of techniques found to be most effective in cross-cultural counseling. (5 units)

### 656. COUNSELING THEORIES AND TECHNIQUES

Theories and techniques of counseling; application to educational settings; experiential orientation. *Prerequisite: Education 531 or consent of instructor.* (5 units)

### 657. COUNSELING PRACTICUM

- A. Supervised practice in the application of counseling skills, theories and techniques. *Prerequisites: Education 531, 652 and 656.* (5 units)
- B. Supervised practice in counseling in a laboratory setting. *Prerequisite: Education 657A and 677 with a grade of B or better.* (5 units)

### 659. LEGAL ASPECTS OF EDUCATION

Current laws and court decisions affecting public education with special emphasis on the laws of the State of California. (5 units)

### 660. SEMINAR IN DEVELOPMENT AND LEARNING

Interdisciplinary approach in understanding cognitive, social and emotional development with emphasis on developmental patterns and implications for early childhood programs. Analysis of selected research and cross cultural studies. *Prerequisite: completion of introductory course in child development or equivalent.* (5 units)

### 665. SEMINAR IN ADULT LEADERSHIP

Methods of composing, conducting and communicating with adult groups. Emphasis on techniques for developing interest and involvement; interpreting early education concepts to parents, paraprofessionals, staff, management and community agencies. (2½ units)

### 667. PRACTICUM IN REHABILITATION COUNSELING

Supervised practice in individual rehabilitation counseling in a laboratory setting. *Prerequisites: Education 657A, Education 649.* (5 units)

**668. PRACTICUM: SEVERELY HANDICAPPED**

Development and utilization of educational assessment techniques, counseling students and parents, directed teaching in educational settings, weekly seminars required. *Prerequisites: Education 530, 532, and 535.*

- A. Developmentally Disabled (5 units)
- B. Severe Language Disorders (5 units)
- C. Severe Cognitive Disorders (5 units)
- D. Severely Emotionally Disturbed (5 units)
- E. Physically Handicapped (5 units)

**669. THE SCHOOL PRINCIPALSHIP**

Role of the school principal with emphasis on leadership, decision-making, group-processes, school climate and site-level budgeting. *Prerequisite: Education 673.* (5 units)

**673. INTRODUCTION TO SCHOOL ADMINISTRATION**

Introduction to the field of school administration with emphasis on theories of school administration, finance, self-assessment and roles of federal, state and local government. (5 units)

**676. SCHOOL COMMUNITY RELATIONS**

Techniques of working with community agencies and groups, including ethnic groups, professional organizations, school boards and advisory groups with attention to emerging social forces. *Prerequisite: Education 673.* (5 units)

**677. GROUP COUNSELING AND GUIDANCE**

Theories and methods of facilitating counseling and guidance in groups; educational applications; experience-based. *Prerequisites: Education 531, 652, 656, or consent of instructor.* (5 units)

**679. FIELD WORK**

Field experiences in selected program topics. With the exception of 679C, all topics must be repeated for a total of five units. *Prerequisite: consent of program coordinator.*

- A. Bilingual Education (2½ units)
- B. Counseling *Prerequisite: Completion of Education 657AB and 677 with a grade of B or better.* (2½ units)
- C. Reading (2½ units)
- D. School Administration (2½ units)
- E. Special Education, Learning Handicapped (2½ units)
- F. Education of the Gifted and Talented (2½ units)
- G. Education of the Severely Handicapped (2½ units)
- H. Resource Specialist *Prerequisites: Education 630, 683, 679 E. Prerequisite or corequisite: Education 646.* Five units of field work may be taken concurrently. (2½ units)
- I. Fieldwork in Rehabilitation Counseling. *Prerequisite: Education 667.* (2.5 units)
- J. Education of the Physically Handicapped. *Prerequisites: Education 530, 532, 535, 626, 668E, 681 or consent of instructor.* (2½ units)

**681. ASSESSMENT OF THE HANDICAPPED**

Techniques for identification and assessment of handicapped individuals. Gathering diagnostic information in academic and social-emotional areas for individual educational program preparation. *Prerequisites: Education 530, 532, 535 or consent of instructor.* (5 units)

**683. CASE WORK IN TEACHING THE LEARNING HANDICAPPED**

Systematic observation, academic assessment, clinical assessment, clinical teaching and specialized formal evaluation procedures applied to learning handicapped pupils. *Prerequisites: Education 530, 532, 535, 625 (for students pursuing the special education specialist learning handicapped credential), 681, 684A and 684B.* (5 units)

## 244 / Education

### 684. SPECIAL EDUCATION

Methods and materials for exceptional learners in the areas of language arts: reading, writing, speaking and listening instruction and in the areas of career education: mathematical, motor and critical skills development. Curriculum issues for resource, self-contained and mainstream programs. *Prerequisites: Education 530, 532, 535 and 681.*

A. Language Arts (5 units)

B. Career Education (5 units)

### 686. SEMINAR IN COUNSELING OF CHILDREN AND PARENTS

Study of theories and techniques in counseling with parents and children. Emphasis on methodology and application of counseling skills. *Prerequisite: pupil personnel services credential.* (2½ units)

### 687. SCHOOL PSYCHOLOGISTS AS CHANGE AGENTS: THEORY AND PRACTICE

Organizational models, systems analysis, powers and change theories and strategies as applied to educational institutions. *Prerequisite: pupil personnel services credential.* (2½ units)

### 688. ETIOLOGY AND DIAGNOSIS OF THE SEVERELY HANDICAPPED

Etiology and diagnosis of severely handicapped students; diagnostic/prescriptive programming; curriculum and methodology for various ability levels. *Prerequisites: Education 530, 532, and 535.* (5 units)

### 689. FIELD WORK FOR SCHOOL PSYCHOLOGISTS

Supervised field work for prospective school psychologists in the schools. Regular seminars and conferences required. *Prerequisites: pupil personnel services credential and Education 647, 648, 660, 681, 686, and Psychology 391 or consent of instructor.*

A. (2½ units)

B. (2½ units)

C. (2½ units)

### 693. SPECIAL TOPICS IN SCHOOL PSYCHOLOGY

Selected topics in school psychology, such as professional issues, ethics and current practices, applicable State Education Codes and court decisions, use of community resources; in-service training theory and practicum. May be repeated for credit as topics change. *Prerequisites: pupil personnel services credential, Education 647, 648, 660, 681, Psychology 391 or consent of instructor.* (5 units)

### 695. FOUNDATIONS OF EDUCATION

History and theory of education within the setting of American society. This course must be taken during the first 15 units of course work toward the M.A. degree or before advancement to candidacy. (5 units)

### 696. SPECIAL TOPICS IN COUNSELOR EDUCATION

Relevant issues in counselor education. May be repeated for credit as topics change. (2½ units)

### 697. ASSESSMENT SEMINAR

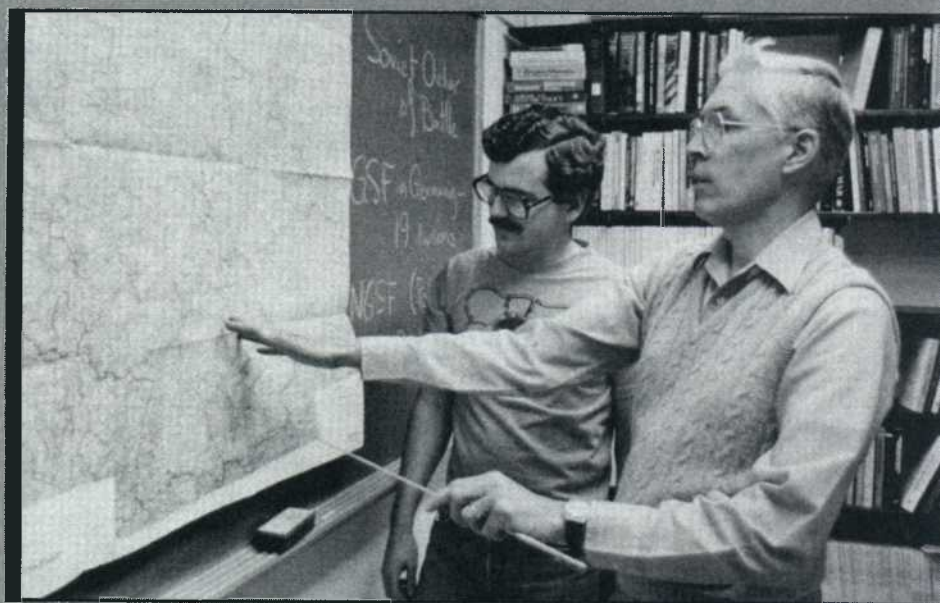
Emphasizes interpretation of roles, processes and relationships within educational structures relative to personal orientation, beliefs and values. *Prerequisites: Education 603, 695 and consent of program coordinator.* This course must be taken during the last 7½ units of course work toward the M.A. degree. (2½ units)

### 698. EXTENDED ENROLLMENT

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of University facilities. *Prerequisites: advancement to candidacy and consent of school.* (0 units)

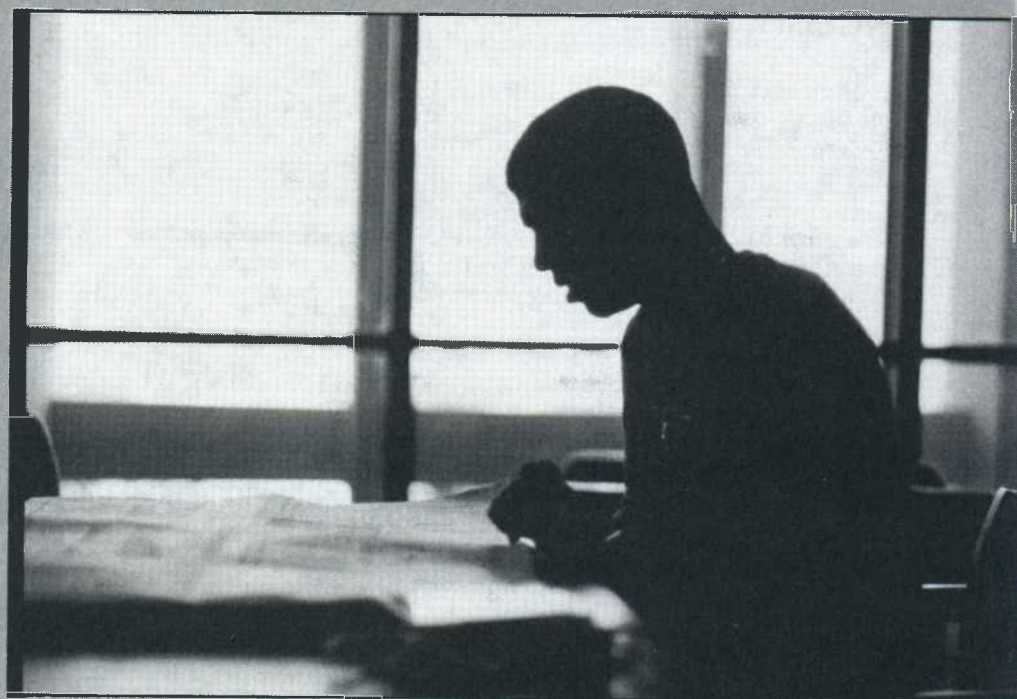
### 699. SECONDARY SCHOOL CURRICULUM

Study of the development of the American secondary school with emphasis on current and emerging patterns of organization and curriculum. *Prerequisite: graduate standing.* (5 units)









## ENGLISH

*Department of English  
Pfau Library Building, Room 248  
887-7446*

Everyone has his or her own reasons for studying literature, but these personal feelings tend to take for granted one common notion: the experience of great poetry, fiction and drama makes people more aware of themselves and their world, more human.

The English department at California State University, San Bernardino is, like most college or university English departments, devoted mainly to the study of literature. The literature courses are arranged in different ways; some analyze a specific genre (poetry, fiction, drama); some treat a particular period (the sixteenth century, the Romantic period); some deal with an individual author, area or problem (Shakespeare, modern American poetry, Black literature, fantasy).

The department offers additional courses in the history and structure of the language and in advanced composition. Courses in creative writing give students the opportunity to write poetry or fiction under the direction of an experienced writer.

English majors enter many careers, such as teaching, journalism, publishing, advertising, writing, business and industry. They may also enter graduate and professional schools for the further study of English or for training in such fields as library science and law. Students having the abilities the English major is designed to foster—perceptive reading, skillful writing and a developed sense of imagination and originality—are particularly well-equipped for the needs of a changing society.

Students majoring in English who also wish to pursue a liberal studies major (diversified major) for elementary school teaching should consult with the department chair.

### Requirements for the Bachelor's Degree

*Requirements for the major:* 13 courses, of which 11 must be upper division. Required are two courses from English 120, 121, 140; two courses from English 301, 302, 303; two courses from English 401, 403, 406, 409, 412, 415, 442, 446; two courses from English 315, 325, 335, 385; one course from English 430, 432, 436, 439; one course from English 475, 476; English 311. The additional two courses may be chosen from any upper-division English courses or from upper-division courses in foreign literature or foreign literature in translation. It is strongly recommended that students majoring in English take English 495 to satisfy the upper-division writing requirement of the University; however, English 495 is not applicable toward the English major.

Students with a serious interest in the writing of fiction or poetry are encouraged to supplement the literary basis of the English major with additional courses in creative writing (English 317, 318, 513) and to complete English 522, a final writing project under faculty supervision. The English Department also sponsors the *Pacific Review*, a literary journal mingling professional and student contributions, and work on the *Pacific Review* staff provides excellent training for students in editorial work.

Students planning to seek a single-subject credential in English are advised to select English 510, "English in the Secondary Classroom," as one of their English electives.

**Teaching Credential Program:** The Bachelor of Arts in English is an approved single subject credential program for students wishing to waive the National Teacher Exam. In order to be recommended for the teaching credential students must complete the requirements of the major in English (structured program) as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements for the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

**Requirements for a minor in English:** six courses, including a course in the study of language (English 311); a survey course in literature (English 110, 111, 120, 121, 140 or 170); an upper-division course in literary analysis (English 301, 302 or 303); an upper-division course in modern literature (English 442, 446, 455 or 456); an upper-division course in Shakespeare (English 475 or 476); an upper-division English elective (except English 300, 399 and 495).

## MASTER OF ARTS IN ENGLISH COMPOSITION

The M.A. in English composition is designed for students interested in pursuing studies in language and writing. The program aims to provide practical experience and techniques in the teaching and/or application of writing in a variety of contexts.

The unique internship component of the English Composition M.A. allows students an opportunity to transfer their knowledge to settings other than public and private schools, thereby enhancing their options for employment in fields other than teaching.

### Admission to the M.A. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree with a major in English, or the following courses taken in conjunction with some other major: English 495; English 311 or 500 or 505; two courses from English 301, 302, 303; one course from English 120, 121, 140; English 475 or 476; one course from English 430, 432, 436; two courses from English 401, 403, 406, 409, 412, 415; one English elective; and
2. A grade-point average of 3.0 in all upper-division English courses.
3. Admission to the program will additionally be based upon evaluation by the English Department graduate committee of the following.
  - a. Three letters of recommendation supporting the student's application. Letters should be from people able to assess the student's competence in English and writing and to make relevant comments on the student's



- likely success in a graduate composition program; and
- b. A 500-word statement of the goals and professional aspirations, to be submitted by the applicant.

Unclassified postbaccalaureate students who have not fulfilled the above requirements may be admitted to the program as conditionally classified graduate students following review by the Department of English graduate committee. To attain fully classified status, such students must satisfy conditions set by the Department of English graduate committee, usually including completion of at least 15 quarter units of appropriate course work at California State University, San Bernardino with a grade-point average of 3.0 or better.

### **Advancement to Candidacy**

In order to be advanced to candidacy, the student must have:

1. Achieved classified status;
2. Been accepted by a major advisor selected from the faculty of the Department of English;
3. Completed at least 15 quarter units of applicable course work as a graduate student at this University, with the approval of the major advisor, and with a minimum grade-point average of 3.0;
4. Submitted a formal program of graduate course work and thesis topic, prepared in consultation with the major advisor and with approval of the Department of English graduate committee; and
5. Gained final approval of the program, including thesis topic, and of the candidacy itself by the associate dean of graduate programs.

### **Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable graduate-level work included in the formal program, with not fewer than 32 completed in residence at this University and with at least 22½ units gained from 600-level courses in English.
2. Advancement to candidacy for the degree and approval of the specific program of courses and thesis research topic.
3. A grade-point average of 3.0 (B) in all graduate course work and research fulfilling the requirements of the Master of Arts in English Composition and grades of "C" (2.0) or better in all courses in the program.
4. Completion of an acceptable thesis.
5. A reading knowledge of one foreign language is strongly recommended.
6. Any general requirements not cited above and noted on Page 94.

### **Requirements for the Degree**

Requirements for the M.A. in English Composition include: English 611, 621, 650, 660, 662, 690, 699A/B/C and 10 units of electives. The elective component of the program requires students to select two courses appropriate to the study of writing and suitable to each student's specific goals. Courses may be chosen from upper-division and graduate offerings of any department in the University, subject to advance approval by the English graduate committee.

### **Certificate Program**

The University offers two certificates in writing: creative and professional. Details concerning these programs are found on Pages 121 and 122.

**85. BASIC ENGLISH**

A full-year course designed specifically for students who score at or within the lowest quartile of the English Placement Test. Emphasis on developing fundamental skills in writing and conceptualizing. English 85 does not apply toward baccalaureate credit. Students achieving the requisite grade on a common exam at the end of the quarter after taking English 85A or 85B or 85C may enroll in English 101. Graded credit/no credit.

A. First Quarter (5 units)

B. Second Quarter (5 units)

C. Third Quarter (5 units)

**95. INTENSIVE ENGLISH**

Intensive work in writing fundamentals. Graded A, B, C/No Credit. Not open for credit to students who have received credit for English 101. Lecture and one hour of writing laboratory. English 95 does not apply toward baccalaureate credit. *Prerequisite: open only to students who score above the low-est quartile on the English placement test.* (5 units)

**101. FRESHMAN COMPOSITION**

Analytical study of the language and structure of prose to help students develop a clear, mature and flexible expository style. Frequent writing required. Graded A, B, C/No Credit. *Prerequisite: essay score of seven or greater and total score of 150 or greater on the English placement test, or completion of the test and at least a grade of C in English 95.* (5 units)

**110. WORLD LITERATURE I**

Readings in Oriental and continental European literature to the Renaissance (in English translation). (5 units)

**111. WORLD LITERATURE II**

Readings in Oriental and continental European literature from the Renaissance to the contemporary period (in English translation). (5 units)

**120. ENGLISH LITERATURE I**

Readings in English literature from the Middle Ages to Milton. (5 units)

**121. ENGLISH LITERATURE II**

Readings in English literature from Dryden to the contemporary period. (5 units)

**140. MAJOR AMERICAN AUTHORS**

Readings in major figures in American literature from the Puritans to the present. (5 units)

**170. STUDIES IN LITERATURE**

Analysis of the forms and content of literature. (5 units)

**300. ENGLISH WORKSHOP**

An intermediate-level refresher course in writing designed to prepare students for advanced work in composition. Concentration on specific techniques. May not be counted toward fulfilling requirements in the English major and does not fulfill the upper-division writing requirement. Not open to students who have already completed Education 495, English 495, Management 495, Natural Sciences 495, Social Sciences 495 or Humanities 495. Graded A, B, C/No Credit. *Prerequisite: English 101.* (5 units)

## 252 / English

### 301. ANALYSIS OF POETRY

Literary analysis of selected lyric poems with special emphasis on how to write about literature. *Prerequisite: English 101.* (5 units)

### 302. ANALYSIS OF DRAMA

Analysis of selected plays. Written analysis required. (Students who enroll in this course may receive either English or Theatre Arts credit but not both. Liberal Studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) *Prerequisite: English 101.* (5 units)

### 303. ANALYSIS OF PROSE FICTION

Literary analysis of selected pieces of narrative prose with special emphasis on how to write about literature. *Prerequisite: English 101.* (5 units)

*Students are strongly advised to take one or more of the analysis courses (English 301, 302, 303) before taking other upper-division courses.*

### 311. THE ENGLISH LANGUAGE

Introduction to the structure and development of the English language. (5 units)

### 315. STUDIES IN LITERARY GENRES

Intensive study in a particular genre. May be repeated for credit as topics change. (5 units)

### 317. INTRODUCTION TO CREATIVE WRITING: POETRY

Workshop in writing poetry, discussion of student writing and exemplary works by established poets. *Prerequisite: English 101 or consent of instructor.* (5 units)

### 318. INTRODUCTION TO CREATIVE WRITING: FICTION

Workshop in writing fiction, discussion of student writing and exemplary works by established authors. *Prerequisite: English 101 or consent of instructor.* (5 units)

### 320. CHILDREN'S LITERATURE

History and development of children's literature; emphasis on developing skills in analyzing, evaluating and selecting books for children. (5 units)

### 325. STUDIES IN MAJOR LITERARY FIGURES

Intensive study in two or more literary figures. May be repeated for credit as topics change. (5 units)

### 333. MYTH AND EPIC

Myths and epics of folklore and of classical literature, emphasizing relationship to later Western literature. (5 units)

### 335. STUDIES IN THE NOVEL

Studies in the novel with emphasis on close reading of specific texts. (5 units)

### 385. INTRODUCTION TO LITERARY CRITICISM

The major issues in literary criticism considered in historical perspective. (5 units)

### 399. COMMUNITY SERVICE PROJECT

Credit for applying previously learned skills in the area of English to academically related tasks in such agencies as governmental, social services and educational institutions. May be repeated for a total of two units. Graded credit/no credit. *Prerequisite: departmental approval of a written application submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 or 2 units)

**401. ENGLISH LITERATURE OF THE MIDDLE AGES**

Lyric, drama, prose and verse narrative from the beginnings of English literature through Malory. (5 units)

**403. ENGLISH LITERATURE OF THE RENAISSANCE**

Poetry, prose and drama of the 16th century. (5 units)

**406. SEVENTEENTH CENTURY LITERATURE**

English prose and poetry from Bacon through Milton. (5 units)

**409. ENGLISH LITERATURE OF THE RESTORATION AND EIGHTEENTH CENTURY**

Emphasis on Dryden, Pope, Swift and Johnson. (5 units)

**412. ROMANTIC PROSE AND POETRY**

Major English romantics such as Blake, Wordsworth, Coleridge, Keats, Shelley and Byron. (5 units)

**415. VICTORIAN LITERATURE**

Major writers of Victorian England. (5 units)

**430. AMERICAN LITERATURE I**

Colonial and Federal American literature to the early nineteenth century. (5 units)

**432. AMERICAN LITERATURE II**

Romantic movement in American literature. (5 units)

**436. AMERICAN LITERATURE III**

Age of realism in American literature. (5 units)

**439. BLACK LITERATURE**

Literature by and about Black people. Emphasis on the contribution of Black writers to the American cultural heritage. (5 units)

**442. MODERN POETRY**

Modern and contemporary poetry. (5 units)

**446. MODERN FICTION**

Modern and contemporary fiction. (5 units)

**450. CLASSICAL DRAMA**

Development of comedy and tragedy in Greece and Rome. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**455. MODERN DRAMA I**

European, English and American realism. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**456. MODERN DRAMA II**

European, English and American anti-realism. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

## 254 / English

### 475. SHAKESPEARE I

Comedies and histories. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

### 476. SHAKESPEARE II

Tragedies and romances. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

### 495. EXPOSITORY WRITING

Advanced expository writing including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the Expository Writing courses (Education 495, Management 495, English 495, Humanities 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

### 500. GRAMMAR AND LINGUISTICS

An introduction to the attitudes, theories and techniques of modern grammar and linguistic science. *Prerequisite: English 311.* (5 units)

### 505. HISTORY OF THE ENGLISH LANGUAGE

Development of the English language from the beginning to the present. *Prerequisite: English 311.* (5 units)

### 510. ENGLISH IN THE SECONDARY CLASSROOM

English as a secondary school subject including language, literature and composition. Special emphasis on problems of improving and assessing student writing. *Prerequisites: English 311, 495 and at least two courses from English 301, 302, 303.* (5 units)

### 513. ADVANCED CREATIVE WRITING

Intensive writing workshop in one genre: poetry, fiction, autobiography or others. Emphasis will change from quarter to quarter. May be repeated for credit as subject matter changes. *Prerequisite: consent of instructor.* (5 units)

### 522. INDEPENDENT STUDY IN WRITING

Project in advanced writing: fiction, non-fiction, poetry or drama. An outline of the project must be approved during the junior year and the completed project approved at least one quarter before graduation. *Prerequisites: English 513 and departmental approval.* (5 units)

### 530. METHODS OF TUTORING WRITING

Study of the theory, principles and methods of tutoring students who need specific practice in writing. Those completing this course with a grade of B or better are eligible to participate in tutorial writing services on campus. May not be counted toward fulfilling requirements for the English or liberal studies major or the M.A. in English Composition. Students in this class are expected to be proficient writers. *Prerequisites: English 101 and consent of instructor.* (2½ units)

### 565. SPECIAL STUDIES IN WRITING

Studies in particular topics in writing, such as assessment, learning theory and research on the teaching of writing. *Prerequisite: consent of instructor.*

A. (2½ units)

B. (2½ units)

### 570. SEMINAR IN ENGLISH LITERATURE

May be repeated for credit with consent of instructor. *Prerequisite: English 301 or 302 or 303, or graduate standing.* (5 units)

**575. INTERNSHIP IN ENGLISH**

Supervised learning experience related to such activities as writing, research and editing in a work setting. A total of five units of English 575 may be applied toward graduation. Graded credit/no credit. *Prerequisites: junior standing with at least 15 units of coursework in English on this campus with an overall grade-point average of 3.0 or better; consent of instructor; and departmental approval of a written proposal submitted in advance of the quarter in which the course is to be taken.* (2½ units)

**580. SEMINAR IN AMERICAN LITERATURE**

May be repeated for credit with consent of instructor. *Prerequisite: English 301 or 302 or 303, or graduate standing.* (5 units)

**595. SPECIAL STUDIES IN LITERATURE**

Independent studies of selected literary figures or study in a special area of literary theory or history. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor, and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**611. THEORY OF RHETORIC AND COMPOSITION**

Traditional and contemporary approaches to rhetoric, composition and style. (5 units)

**621. APPROACHES TO IMAGINATIVE WRITING**

Traditional and contemporary approaches to imaginative writing; emphasis on means of encouraging different styles and modes of expression. *Prerequisite: English 317 or 318 or 513 or consent of instructor.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**631. APPROACHES TO PROFESSIONAL WRITING**

Emphasis on writing and teaching the techniques of composing professional reports, abstracts, reviews, and of editing technical manuals and preparing articles for professional journals. (5 units)

**650. APPROACHES TO LITERATURE**

Study and practice of various critical approaches, such as the moral, formalistic, psychological, archetypal, with particular attention to their assumptions about the meaning and function of literature. (5 units)

**660. PROBLEMS IN WRITING**

Seminar in the development of techniques to resolve specific problems of student writing. This course will include an internship component. *Prerequisite: English 611. May be repeated once for credit.* (5 units)

**662. INTERNSHIP IN COMPOSITION**

A practical application of the principles studied in English 660. Supervised tutoring work in practical situations dealing with composition. May be repeated once for credit. *Prerequisites: English 611 and 660.* (2½ units)

## 256 / English

### 666. SEMINAR IN WRITING

Studies in particular topics in writing. May be repeated for credit as topics change; a maximum of 10 units of credit may be applied to the M.A. in English Composition program. *Prerequisite: consent of instructor.* (2½ units)

### 670. WRITING ACROSS THE DISCIPLINES

Approaches to writing used in disciplines other than English. Emphasis on development of assignments and varying forms of presentation. *Prerequisite: consent of instructor.* (5 units)

### 690. RESEARCH TECHNIQUES

Critical study of research methods and resources, including bibliography. Topics covered will be appropriate to a focus on English composition. (5 units)

### 698. EXTENDED ENROLLMENT

Independent study leading to completion of requirements for the master's degree. To maintain continuous enrollment, graduate students who have completed course work should enroll in English 698 until thesis is completed. *Prerequisites: completion of all course work and consent of Graduate Advisory Committee.* (0 units)

### 699. MASTER'S DEGREE THESIS AND RESEARCH

Topic must be appropriate to a focus on English composition. *Prerequisite: advancement to candidacy to register for 699B and C.*

A. (2½ units)

B. (2½ units)

C. (2½ units)

## ENVIRONMENTAL STUDIES

*Department of Geography  
Student Services Building, Room 139  
887-7280*

To accomplish its principal objective of promoting an understanding of the interaction of human beings with their environment, this interdisciplinary degree program includes courses primarily from the natural sciences and social sciences.

Major requirements from the natural sciences develop fundamental principles about the composition and functioning of the earth's ecosystems, principles deemed essential to a sound working knowledge of the environment. Course offerings from the social sciences assess the impact of human beings upon the environment and the possibility of creating different environments.

The program is designed for students who desire either to focus on a study of the environment as part of a broader liberal arts curriculum or to prepare for an environmentally related career or graduate school. Professional opportunities for graduates include a wide range of tasks in public agencies responsible for developing and enforcing environmental controls, and in business, industry and nonprofit organizations which need qualified individuals to communicate environmental information and to assist in compliance with environmental regulations. Additional opportunities are available in conjunction with other programs of study, such as environmental law, environmental health, education and public administration.

### Requirements for the Bachelor's Degree

*Requirements for the major:* the prospective major in environmental studies may elect to pursue one of two alternatives, Track A or Track B.

*Track A*

*Basic core:*

**BIOLOGY 202. BIOLOGY OF POPULATIONS**

**CHEMISTRY 205. FUNDAMENTALS OF CHEMISTRY I: GENERAL CHEMISTRY**

**MATHEMATICS 350. STATISTICS: HYPOTHESIS TESTING AND ESTIMATION**

or

**SOCIAL SCIENCES 215. STATISTICS FOR THE SOCIAL SCIENCES**

*Three of the following:*

**EARTH SCIENCE 101. PHYSICAL GEOLOGY**

**GEOGRAPHY 103. PHYSICAL GEOGRAPHY**

**PHYSICS 100. PHYSICS IN THE MODERN WORLD**

or

**PHYSICS 121 and 225. BASIC CONCEPTS OF PHYSICS I**



## **258 / Environmental Studies**

**CHEMISTRY 206. FUNDAMENTALS OF CHEMISTRY II: ORGANIC CHEMISTRY**

**BIOLOGY 200. BIOLOGY OF THE CELL**

**BIOLOGY 201. BIOLOGY OF ORGANISMS**

**HEALTH SCIENCE 120. HEALTH AND SOCIETY: AN ECOLOGICAL APPROACH**

**ANTHROPOLOGY 100. INTRODUCTION TO ANTHROPOLOGY: HUMAN EVOLUTION**

### *Upper-division core:*

**GEOGRAPHY 350. CONSERVATION AND NATURAL RESOURCES**

**GEOGRAPHY 360. CLIMATE AND VEGETATION**

**GEOGRAPHY 370. LANDFORMS, SOILS AND REMOTE SENSING**

**ECONOMICS 360. ECONOMICS OF THE ENVIRONMENT**

or

**HEALTH SCIENCE 401. LAND USE: HEALTH ASPECTS**

### *Electives:*

A major in Track A must have six of the following electives with at least two courses from each of the following groups provided that none of these courses have been used elsewhere to meet the requirements of this major.

#### *Group 1*

**BIOLOGY 319. LOCAL FLORA**

**BIOLOGY 220. PRINCIPLES OF MICROBIOLOGY**

**BIOLOGY 370. SYMBIOSIS**

**BIOLOGY 450. ECOLOGY**

**BIOLOGY 464. PLANT TAXONOMY**

**GEOGRAPHY/BIOLOGY 460. BIOGEOGRAPHY**

**HEALTH SCIENCE 352. ENVIRONMENTAL HEALTH I**

**HEALTH SCIENCE 353. ENVIRONMENTAL HEALTH II**

**HEALTH SCIENCE 458. VECTOR AND ZOO NOTIC DISEASE CONTROL**

#### *Group 2*

**ANTHROPOLOGY 475. CULTURAL ECOLOGY**

**ECONOMICS 360. ECONOMICS OF THE ENVIRONMENT**

**POLITICAL SCIENCE 342. THE POLITICS OF ENVIRONMENT**

**GEOGRAPHY 301. CARTOGRAPHY**

**GEOGRAPHY 380. POPULATION GEOGRAPHY**

**GEOGRAPHY 415. URBAN PLANNING AND LAND DEVELOPMENT**

**HEALTH SCIENCE 372. ENVIRONMENTAL ADMINISTRATION AND ENVIRONMENTAL IMPACT REPORTING**

**HEALTH SCIENCE 401. LAND USE: HEALTH ASPECTS**

*Optional courses not a part of the major:*

Students are encouraged to continue their studies of the environment through the use of independent study courses and approved internships.

*Track B*

Basic core:

**BIOLOGY 200. BIOLOGY OF THE CELL**

**BIOLOGY 201. BIOLOGY OF ORGANISMS**

**BIOLOGY 202. BIOLOGY OF POPULATIONS**

**CHEMISTRY 215. INTRODUCTORY CHEMISTRY I: ATOMIC STRUCTURE AND  
CHEMICAL BONDING**

**CHEMISTRY 216. INTRODUCTORY CHEMISTRY II: PRINCIPLES OF CHEMICAL  
REACTIONS**

**CHEMISTRY 217. INTRODUCTORY CHEMISTRY III: MODERN QUANTITATIVE  
ANALYSIS**

**MATHEMATICS 350. STATISTICS: HYPOTHESIS TESTING AND ESTIMATION**

**PHYSICS 100. PHYSICS IN THE MODERN WORLD**

or

**PHYSICS 121 and 225. BASIC CONCEPTS OF PHYSICS I**

*Upper-division core:*

**GEOGRAPHY 350. CONSERVATION AND NATURAL RESOURCES**

**GEOGRAPHY 360. CLIMATE AND VEGETATION**

**GEOGRAPHY 370. LANDFORMS, SOILS AND REMOTE SENSING**

**ECONOMICS 360. ECONOMICS OF THE ENVIRONMENT**

or

**HEALTH SCIENCE 401. LAND USE: HEALTH ASPECTS**

*Electives: one of the following pairs must be chosen:*

**CHEMISTRY 221. ORGANIC CHEMISTRY I and CHEMISTRY 222. ORGANIC  
CHEMISTRY II**

or

**BIOLOGY 370. SYMBIOSIS and BIOLOGY 450. ECOLOGY**

In addition, a major in environmental studies with Track B must have any two of the following provided that neither has been used in the pairs above.

**EARTH SCIENCE 101. PHYSICAL GEOLOGY**

**BIOLOGY 319. LOCAL FLORA**

**BIOLOGY 370. SYMBIOSIS**

**BIOLOGY 450. ECOLOGY**

**BIOLOGY 464. PLANT TAXONOMY**

**BIOLOGY/GEOGRAPHY 460. BIOGEOGRAPHY**

**CHEMISTRY 221. ORGANIC CHEMISTRY I**

**CHEMISTRY 222. ORGANIC CHEMISTRY II**

## **260 / Environmental Studies**

**HEALTH SCIENCE 352. ENVIRONMENTAL HEALTH I**

**HEALTH SCIENCE 353. ENVIRONMENTAL HEALTH II**

*Optional courses not a part of the major:*

Students are encouraged to continue their studies of the environment through the use of independent study courses and approved internships.

*Honors in the Major:* Students majoring in environmental studies are eligible to receive honors in environmental studies at graduation if the following conditions are met: (1) at least one-half of the course work required by the major is completed at this University, (2) at least a 3.5 GPA in the major, both at this University and overall, (3) an overall undergraduate GPA of 3.0 or better, and (4) completion of a senior project approved in advance by the program coordinator. Students interested in receiving this recognition must initiate the process by making a formal application with the Geography Department secretary.

## ETHNIC STUDIES

The University, as part of its ethnic studies program, offers a variety of subject matter options. These include the history major with options in Black studies or Mexican-American studies and the sociology major with options in Black studies or Mexican-American studies. In addition, a group of three ethnic studies courses may be selected for a supporting field in a social sciences major. Besides these, the University offers ethnic studies courses as electives.

A degree in history with an emphasis in either Black or Mexican-American studies should include the following: History 200, 201, 300, 301 and 490. The remaining five courses shall be selected by the student and advisor from the appropriate ethnic studies concentration.

The ethnic studies option in sociology requires Social Sciences 215 or Sociology 308 or equivalent; Sociology 100, 310, 312; four courses in either Mexican-American studies or Black studies, and two additional sociology courses which fulfill requirements for the sociology major.

*Inquire at the History Department Office, Administration Building, Room 130 (Telephone 887-7239) for information concerning an ethnic studies emphasis in history. Inquire at the Sociology Department Office, Administrative Building, Room 183 (Telephone 887-7224) for information concerning an ethnic studies option in sociology. Academic advising and counseling are also available at both offices.*

**ANTHROPOLOGY 351. INDIANS OF NORTH AMERICA**

**ANTHROPOLOGY 352. INDIANS OF THE SOUTHWEST**

**ANTHROPOLOGY 354. CULTURES OF MEXICO AND CENTRAL AMERICA**

**ANTHROPOLOGY 357. AFRICAN SOCIETIES**

**ART 328. MEXICAN ART**

**ART 329. CHICANO ART**

**COMMUNICATION 472. HISPANIC AUDIENCES**

**EDUCATION 536. TEACHING THE CULTURALLY DIFFERENT**

**ENGLISH 439. BLACK LITERATURE**

**HISTORY 331. BLACK HISTORY I: THE AFRICAN EXPERIENCE**

**HISTORY 334. BLACK HISTORY II: THE AMERICAN EXPERIENCE**

**HISTORY 390. HISTORY OF MEXICO**

**HISTORY 391. CHICANO HISTORY**

**HISTORY 565. ETHNIC MINORITIES IN AMERICAN HISTORY**

**HISTORY 566. ETHNIC MINORITIES IN THE AMERICAN SOUTHWEST: PAST AND PRESENT**

**INTERDISCIPLINARY STUDIES 460. ASPECTS OF CHICANO CULTURE**

## **262 / Ethnic Studies**

**MUSIC 350. MUSIC OF OTHER CULTURES**

**MUSIC 351. MEXICAN AND CHICANO MUSIC**

**MUSIC 352. AFRO-AMERICAN MUSIC**

**POLITICAL SCIENCE 306. DEVELOPING POLITICAL SYSTEMS**

**POLITICAL SCIENCE 350. POLITICS OF BLACK AMERICA**

**POLITICAL SCIENCE 351. THE CHICANO AND POLITICS**

**PSYCHOLOGY 337. PSYCHOLOGICAL DEVELOPMENT OF THE BLACK AMERICAN**

**PSYCHOLOGY 347. PSYCHOLOGICAL DEVELOPMENT OF THE CHICANO**

**SOCIAL SCIENCES 155. MINORITY GROUPS IN AMERICA**

**SOCIOLOGY 322. SOCIOLOGY OF THE GHETTO**

**SOCIOLOGY 341. MARRIAGE AND FAMILY AMONG BLACKS**

**SOCIOLOGY 342. THE CHICANO FAMILY**

**SOCIOLOGY 410. RACIAL AND CULTURAL MINORITIES**

**SOCIOLOGY 441. BLACK SOCIAL STRATIFICATION**

**SOCIOLOGY 442. CHICANO SOCIAL STRATIFICATION**

**SPANISH 440. MEXICAN LITERATURE**

**SPANISH 450. MEXICAN LITERATURE IN TRANSLATION**



## FINANCE

*Department of Accounting and Finance  
Administration Building, Room 162  
887-7676*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Bachelor of Science, Master of Business Administration, and Certificate can be earned with a concentration in finance. The details of these programs are listed under Administration (Page 134) and under Certificate programs (Page 103). Further information about these programs is available from the Department of Accounting and Finance.

### **201. PERSONAL FINANCE**

Financial planning and problem-solving for the individual. Development and management of assets and credit, insurance alternatives, investment and savings opportunities, and retirement and estate planning are explored. Includes study of budgeting, taxes, housing, contemporary developments in financial institutions, and legal regulations. May not be counted towards fulfilling requirements for any degree program offered by the School of Business and Public Administration. (5 units)

### **313. FINANCIAL MANAGEMENT**

Basic principles of financial analysis for management. Techniques of financial decision-making for liquidity management, financial forecasting, dividend policy and selection of sources of capital. May not be taken for credit by students who have taken Administration 303. *Prerequisite: Accounting 312.* (5 units)

### **430. FINANCIAL POLICIES AND SYSTEMS**

Financial management with application to capital markets, financial planning, capital budgeting, capital structure, portfolio selection and managerial problems. *Prerequisite: Finance 313.* (5 units)

### **432. FINANCIAL INTERMEDIARIES**

Structure, operations, portfolio compositions and problems of financial intermediaries and markets. *Prerequisite: Finance 313.* (5 units)

### **433. INTERNATIONAL BUSINESS FINANCE**

Financial operations of multinational businesses with emphasis on foreign exchange mechanics, funds transmission, financing instruments, institutions and markets, capital investment decisions and special problems facing a firm in this unique environment. *Prerequisite: Finance 313.* (5 units)

### **434. EXPORT-IMPORT FINANCING**

International complexities of financing worldwide business. Emphasis on sources of domestic financing, international lending agencies, markets, insurance guarantee programs, international banking and development banks. Problems of income and dividend repatriation and taxation. *Prerequisite: Finance 313.* (5 units)

### **435. INVESTMENT ANALYSIS**

Analysis and forecasting of security markets, industry studies, portfolio construction. *Prerequisite: Finance 313.* (5 units)

**445. FINANCIAL SYSTEMS MANAGEMENT**

Financial and accounting information systems with emphasis on the development and implementation of computer-based systems. Design of systems to produce information and financial reports for planning and control. *Prerequisite: Finance 313.* (5 units)

**503. ACCOUNTING AND FINANCIAL MANAGEMENT**

Intensive introduction to applied topics and techniques in accounting and financial management. Development and use of basic financial information for management analysis, decision-making, planning and control. No credit will be awarded to students who have had Accounting 303, 306, 311, 312 and Finance 313. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration. (5 units)

**575. INTERNSHIP IN FINANCE**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite: consent of instructor and school.* (5 units)

**590. SEMINAR IN FINANCE**

An intensive study of some phase of Finance to be developed by the instructor. May be repeated for credit as topics change. (5 units)

**595. INDEPENDENT STUDY**

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**602. FINANCIAL PLANNING AND CONTROL**

Current developments and controversies in accounting and financial controls for government and industry. Analysis of financial management in the context of recent technological, sociological and environmental changes. *Prerequisite: Finance 313 or 503.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**645. ADVANCED FINANCIAL SYSTEMS MANAGEMENT**

Design and implementation of information systems for the development of financial and managerial reports for the corporate manager. Emphasis on simulation models for planning and control. *Prerequisite: Finance 503.* (5 units)

**651. FINANCIAL INSTITUTIONS AND MARKETS**

Analysis of financial institutions and markets. Term structure of interest rates, portfolio theory and flow-fund analysis, deposit-type intermediaries, insurance, pension funds and investment companies. (5 units)

**653. INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

Comprehensive introduction to the descriptive and formalized quantitative areas of security analysis and portfolio management. *Prerequisite: Finance 313 or 503.* (5 units)



## 266 / Finance

### **654. INTERNATIONAL FINANCE**

Study of international financial environment and problems in operation of multinational enterprises with major focus on theory and practice of foreign exchange transactions, money and capital markets, investment decisions, current asset management and comparative financial systems. *Prerequisite: Finance 602.* (5 units)

### **655. MANAGEMENT OF FINANCIAL INSTITUTIONS**

Concepts and techniques used in management of banks, savings and loans, credit unions and finance companies. Topics include asset, liability and capital management, expense control and productivity analysis. *Prerequisite: Finance 651.* (5 units)

### **690. ADVANCED TOPICS IN FINANCE**

Intensive study of an advanced topic in finance. May be repeated for credit as topics change. (5 units)

## FOODS AND NUTRITION

*Department of Health Science  
Physical Sciences Building, Room 119  
887-7348*

The Bachelor of Science in Foods and Nutrition emphasizes training appropriate for students planning to enter careers in dietetics and public health nutrition or to enter graduate schools. The program meets the Plan IV educational requirements of the American Dietetic Association.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:*

*Lower-Division Courses:*

**BIOLOGY 100. TOPICS IN BIOLOGY**

**BIOLOGY 220. PRINCIPLES OF MICROBIOLOGY**

**BIOLOGY 222. HUMAN ANATOMY AND PHYSIOLOGY**

**CHEMISTRY 205. FUNDAMENTALS OF CHEMISTRY I: GENERAL CHEMISTRY**

**CHEMISTRY 206. FUNDAMENTALS OF CHEMISTRY II: ORGANIC CHEMISTRY**

**CHEMISTRY 207. FUNDAMENTALS OF CHEMISTRY III: BIOCHEMISTRY**

**COMMUNICATION 120. ORAL COMMUNICATION**

**ENGLISH 101. FRESHMAN COMPOSITION**

**HEALTH SCIENCE 120. HEALTH AND SOCIETY: AN ECOLOGICAL APPROACH**

**MATHEMATICS1 110. INTRODUCTION TO COLLEGE MATHEMATICS**

**POLITICAL SCIENCE 203. AMERICAN GOVERNMENT**

*plus one of the following:*

**COMPUTER SCIENCE 120. FUNDAMENTALS OF COMPUTING**

**MATHEMATICS 350. STATISTICS: HYPOTHESIS TESTING AND ESTIMATION**

*plus one of the following:*

**ECONOMICS 104. INTRODUCTION TO ECONOMICS**

**ECONOMICS 200. PRINCIPLES OF MICROECONOMICS**

**ECONOMICS 202. PRINCIPLES OF MACROECONOMICS**

*plus one of the following:*

**SOCIOLOGY 100. THE STUDY OF SOCIETY**

## **268 / Foods and Nutrition**

**ANTHROPOLOGY 102. INTRODUCTION TO ANTHROPOLOGY: CULTURE AND SOCIETY**

**SOCIAL SCIENCES 160. CONTEMPORARY CIVILIZATION: VALUES AND BEHAVIOR**

*Upper-Division Courses:*

**MANAGEMENT 302. MANAGEMENT AND ORGANIZATIONAL BEHAVIOR**

**EDUCATION 330. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION**

**HEALTH SCIENCE 352. ENVIRONMENTAL HEALTH I**

**HEALTH SCIENCE 358. FOODS, NUTRITION AND HEALTH**

**HEALTH SCIENCE 362. PRINCIPLES OF NUTRITION**

**HEALTH SCIENCE 370. DIET AND DISEASE**

**HEALTH SCIENCE 451. PRINCIPLES OF EPIDEMIOLOGY**

**HEALTH SCIENCE 461. FOOD SYSTEMS AND MEAL MANAGEMENT**

**HEALTH SCIENCE 493ABC. INTERNSHIP IN DIETETICS**

**NATURAL SCIENCE 495. EXPOSITORY WRITING FOR THE NATURAL SCIENCES**

*plus one of the following:*

**MATHEMATICS 350. STATISTICS: HYPOTHESIS TESTING AND ESTIMATION**

**COMPUTER SCIENCE 120. FUNDAMENTALS OF COMPUTING**

*Electives*

*17 units to be selected from the following:*

**HEALTH SCIENCE 336. DRUG AND ALCOHOL USE AND ABUSE**

**HEALTH SCIENCE 415. MEDICAL CARE ORGANIZATIONS**

**HEALTH SCIENCE 427. HOSPITAL ADMINISTRATION**

**HEALTH SCIENCE 430. FOOD-BORNE ILLNESSES AND THEIR PREVENTION**

**HEALTH SCIENCE 470. HEALTH BEHAVIOR AND COMMUNITY HEALTH EDUCATION**

## FOREIGN LANGUAGES AND LITERATURES

*Department of Foreign Languages  
Pfau Library Building, Room 236B  
887-7445*

The Department of Foreign Languages offers a wide variety of courses both in the foreign languages and in English. The foreign languages include French, German and Spanish. The offerings of each language can be found separately listed in alphabetical order. Courses that apply comprehensively to all languages, including English, appear below.

The principal objectives of the department's programs are to teach students to understand, speak, read and write the foreign languages offered; and to promote an understanding of foreign civilizations and an appreciation of their literatures. This background will prepare students to teach foreign languages and will provide language skills for those interested in positions such as librarian, interpreter, translator, foreign service officer and foreign trade specialist.

The Cooperative Program in Foreign Language and Literature gives students the opportunity, without additional fees, to take courses in foreign languages not available on this campus or any neighboring CSU campus but offered at UCLA. For information regarding enrollment and qualifications, interested students should inquire at the Department of Foreign Languages and Literatures.

### **100. ENGLISH AS A SECOND LANGUAGE**

Self-paced course designed to help students gain mastery of the English language at beginning, intermediate and advanced levels. No more than 10 units are applicable to a baccalaureate degree. Open only to foreign students for whom English is a second language. *Prerequisite: consent of instructor.* (5 units)

### **295. INDEPENDENT LANGUAGE STUDY**

For the occasional student seeking the equivalent of a lower-division language course not offered in the regular classroom format. Course may be repeated for credit. *Prerequisite: consent of department.* (5 units)

### **450. LITERATURE IN TRANSLATION**

Significant masterpieces of a genre or a period read in English translation. No prerequisite. May be repeated for credit as topics change. When the topic of Foreign Languages 450 is Mexican literature, this course may not be taken for credit by a student who has received credit for Spanish 450. (5 units)

### **555. INDEPENDENT STUDY**

Independent study of individual writers and genres. *Prerequisite: one 300-level course in the language under study or consent of instructor, a minimum overall grade-point average of 3.0, departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (5 units)

## **270 / Foreign Languages and Literatures**

### **599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## FRENCH

*Department of Foreign Languages  
Pfau Library Building, Room 236B  
887-7445*

The study of French combines training in foreign studies with language, literature and culture. These studies contribute to the basis of any program of liberal education, affording insight into foreign attitudes and methods and permitting free communication, written and oral, among people.

In addition to the traditional preparation of teachers in the subject, a major in French can provide a good background for advanced professional or business programs, especially when combined with an appropriate second major.

Attention is drawn to other courses which may be of interest to French majors: Humanities 350, 460, 499; Foreign Languages 295, 450, 555.

### Requirements for the Bachelor's Degree

*Requirements for the major in French:* 70 quarter units in French. French 101, 102, 103, 104, 200, 210, 306; plus 15 units chosen from the following: French 311, 312, 313, 314; the remaining units may be chosen from the following: 302, 309A, 309B, 309C, 340 (may be taken twice), 420, 460.

*Teaching Credential Program:* The Bachelor of Arts in French is an approved single subject teaching credential program in foreign language. In order to be recommended for the teaching credential, students must complete the Bachelor of Arts in French as well as French 460 and certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements of the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Requirements for the minor in French:* 8 courses (40 quarter units) in French. French 101, 102, 103, 104, 200, 210, 306 and additional course(s) at the 300 level.

### Certificate Program

The Department of Foreign Languages and Literatures offers a certificate program for French/English and English/French translators. Details concerning this program are found on Page 109.

*Courses at the 101, 102 and 103 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours. These courses are offered in a self-paced format as well as a traditional format.*

#### 101. ELEMENTARY FRENCH I

Pronunciation, grammar, reading and conversation. (5 units)

## 272 / French

### 102. ELEMENTARY FRENCH II

Continuation of French 101. (5 units)

### 103. INTERMEDIATE FRENCH I

Grammar, composition and conversation; discussion in French of literary texts. *Prerequisite: French 102 or equivalent.* (5 units)

### 104. INTERMEDIATE FRENCH II

Continuation of French 103. (5 units)

### 200. CONVERSATION AND COMPOSITION

*Prerequisite: French 104 or equivalent.* (5 units)

### 210. INTRODUCTION TO LITERARY STUDY

Techniques of literary study and analysis. Explication de textes. *Prerequisite: French 104 or equivalent.* (5 units)

*Ordinarily, upper-division courses are conducted in French. Students enrolled in these courses will be evaluated on appropriate progress in both the command of the language and the subject matter.*

### 302. ADVANCED FRENCH COMPOSITION

Structure of the French language, with emphasis on improvement of the students' ability to write French. *Prerequisite: French 200 or equivalent.* (5 units)

### 306. FRENCH LINGUISTICS

French phonology, morphology and syntax. *Prerequisite: French 200 or equivalent.* (5 units)

### 309. FRENCH FOR TRANSLATORS

Extensive practice in precise written translations from French into English and from English into French. Self-paced course. *Prerequisite: French 104 or equivalent.*

A. (5 units)

B. (5 units)

C. (5 units)

### 311. MASTERPIECES OF FRENCH LITERATURE I

Middle Ages and sixteenth century. *Prerequisite: French 210 or equivalent.* (5 units)

### 312. MASTERPIECES OF FRENCH LITERATURE II

Seventeenth and eighteenth centuries. *Prerequisite: French 210 or equivalent.* (5 units)

### 313. MASTERPIECES OF FRENCH LITERATURE III

Nineteenth century. *Prerequisite: French 210 or equivalent.* (5 units)

### 314. MASTERPIECES OF FRENCH LITERATURE IV

Twentieth century. *Prerequisite: French 210 or equivalent.* (5 units)

### 340. ADVANCED CONVERSATION

Advanced practice of oral French stressing the reading and discussion of current topics in France. May be repeated for credit. *Prerequisite: French 200 or consent of instructor.* (2½ units)

### 399. COMMUNITY SERVICE PROJECT

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

**420. SPECIAL TOPICS IN FRENCH LITERATURE**

Critical examination of selected works in French literature. Emphasis on the novel, drama, poetry and the essay. May be repeated for credit when topics change. *Prerequisites: two 300-level courses in French literature or equivalent.* (5 units)

**460. FRENCH CULTURE STUDIES**

Aspects of culture and civilization with emphasis on major factors shaping national tradition. *Prerequisite: French 200.* (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)



## GEOGRAPHY

*Department of Geography  
Student Services Building, Room 139  
887-7280*

Geography is concerned with the spatial variations and interrelations of the natural and cultural features of the earth. Geographers study the earth primarily as the home of human beings. As an approach to knowledge, geography forms an interdisciplinary bridge between the physical and cultural worlds, examining both humans and their environment. As a synthesizing discipline, geography is an especially attractive major for liberal arts and science students. Its body of theory and methodologies provides an analytic technique applicable to a wide range of questions. For students planning to terminate their formal education with a bachelor's degree, it also provides both the regional and world perspective required of responsible citizens. For the same reasons, geography is especially valuable for those who plan to do graduate work. Geography offers job opportunities in teaching, business, government, armed forces, conservation and water resources, planning and market research, and international organizations.

### Requirements for the Bachelor's Degree

The geography major involves a two-track system, Track A and Track B. Requirements for all majors include the following core: Geography 100, 103, 360 or 370, 380, 420 and one area study. Cartography (Geography 301) is highly recommended for all Track A and Track B majors.

Track A requires that students take, in addition to the core, 20 units of upper-division course work in geography. Only five of these units may be drawn from the area studies group.

Track B requires that students take, in addition to the core, 20 units of upper-division course work in geography and/or related disciplines. These units, selected in consultation with an advisor, must be from one of the following fields of study: urbanization, modernization, area studies, earth science, or environmental analysis.

*Requirements for a minor in geography:* 30 units in geography including the series 100, 103, 420. The remaining 15 units can be chosen from any of the upper-division geography offerings with the restriction that only five units can be an area study.

### Certificate Program

The department offers a certificate program in Urban Planning. Details concerning this program are found on Page 120.

#### 100. INTRODUCTION TO HUMAN GEOGRAPHY

Introduction to the geographic study of human activities throughout the world. (5 units)

**103. PHYSICAL GEOGRAPHY**

Systematic approach to the physical environment of man stressing the relationships between the atmosphere, land, life forms and water. Lecture and laboratory. (5 units)

**301. CARTOGRAPHY**

Provides students with necessary drafting skills to construct maps, charts and graphs as well as training in map interpretations. *Prerequisite: consent of instructor.* (5 units)

**302. GEOGRAPHY OF CALIFORNIA**

Systematic and regional study of California geography stressing general geographical concepts to explain sequential human settlement patterns in relation to the natural environment. (5 units)

**309. AREA STUDY: SOVIET UNION**

Regional analysis of socio-economic development and environmental problems. (5 units)

**321. AREA STUDY: LATIN AMERICA**

Regional analysis of socio-economic development and environmental problems. (5 units)

**350. CONSERVATION AND NATURAL RESOURCES**

Principles of resource utilization and ecology as they involve human development and politico-economic policy. (5 units)

**360. CLIMATE AND VEGETATION**

Climate and vegetation, and the interrelationships between the two including the consideration of atmospheric processes significant for understanding regional patterns of distribution. *Prerequisite: Geography 103 or consent of instructor.* (5 units)

**370. LANDFORMS, SOILS AND REMOTE SENSING**

Landscape analysis through techniques including interpretation of maps, aerial photographs, satellite imagery and geographic field data; considers selected surface features, developmental processes and principles of environmental remote sensing. *Prerequisite: Geography 103, or Earth Science 101, or consent of instructor.* (5 units)

**380. POPULATION GEOGRAPHY**

Spatial distribution and redistribution of population; interrelationships between population and the environment, including techniques of analysis. (5 units)

**390. SELECTED TOPICS IN GEOGRAPHY**

Examination of selected topics of current interest in geography. May be repeated for credit as topics change. (5 units)

**392. SELECTED TOPICS IN GEOGRAPHY**

Examination of selected topics of current interest in geography. May be repeated for credit as topics change. (2½ units)

**415. URBAN PLANNING AND LAND DEVELOPMENT**

Comprehensive urban planning and land use controls. Emphasis on impact of urban development in North America. (5 units)

**420. GEOGRAPHY OF ECONOMIC ACTIVITY**

Analysis of concepts of location, interaction and regionalization as they apply to economic activity. Special emphasis on economic growth and modernization. (5 units)

**440. URBAN GEOGRAPHY**

Description and classification of cities, analysis of their distribution, and a study of the external and internal relations of urban areas. (5 units)

## 276 / Geography

### 460. BIOGEOGRAPHY

Investigation of plants and animals according to their environmental and spatial relationships. Bio-geographic theory and regions will be examined; agents of biotic distribution and human influences will be noted. (Also offered as Biology 460. Students may not receive credit for both.) *Prerequisites: upper-division standing, Geography 103, and Biology 201 or 202; or consent of instructor.* (5 units)

### 470. HYDROLOGY AND WATER RESOURCES

Basic principles of hydrology: relationships between atmospheric, surface and groundwater phenomena; streamflow and flood prediction; water supply and quality. *Prerequisite: Geography 103 or consent of instructor.* (5 units)

### 575. INTERNSHIP IN GEOGRAPHY

Supervised work in public or private organizations emphasizing practical applications of geographic concepts. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

### 595. INDEPENDENT STUDY

A total of 10 units in Geography 595 may be applied toward the major and graduation. *Prerequisites: A minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 609. SEMINAR IN THE GEOGRAPHY OF THE SOVIET UNION

A geographic perspective of the Soviet Union, including such topics as population, economic development, environment and foreign relations. (5 units)

### 621. SEMINAR IN THE GEOGRAPHY OF LATIN AMERICA

A geographic perspective of Latin America, including such topics as population, economic development, environment and foreign relations. (5 units)

## GERMAN

*Department of Foreign Languages  
Pfau Library Building, Room 236B  
887-7445*

The German program, open to all interested students, offers courses that develop language capabilities and an appreciation and comprehension of the literature and culture of Germany, Austria and Switzerland. Information on the special interdisciplinary major in German area studies may be obtained from the Department of Foreign Languages.

Courses taught in English are listed under Foreign Languages (Page 269) and Humanities (Page 298). Courses listed below are offered both to fulfill general education requirements and to support other major programs.

### Requirements for the Minor

Requirements for a minor in German: German 101, 102, 103, 200, 309, and one additional course at the 300 level.

### Certificate Program

The Department of Foreign Languages and Literatures offers a certificate program for German/English and English/German translators. Details concerning this program are found on Page 110.

*Courses at the 101, 102 and 103 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours.*

#### 101. ELEMENTARY GERMAN I

Pronunciation, grammar, reading and conversation. (5 units)

#### 102. ELEMENTARY GERMAN II

Continuation of German 101. (5 units)

#### 103. INTERMEDIATE GERMAN I

Reading and discussion of modern German prose and poetry, grammar review, composition and conversation. *Prerequisite: German 102 or equivalent.* (5 units)

#### 200. CONVERSATION AND COMPOSITION

Practice in written and spoken German with emphasis on communicative skills and vocabulary building. May be repeated for credit as topics change. *Prerequisite: German 103 or consent of instructor.* (5 units)

*Ordinarily, upper-division courses are conducted in German. Students enrolled in these courses will be evaluated on appropriate progress in both the command of the language and the subject matter.*

#### 308. READINGS IN GERMAN LITERATURE

Selected literary genre or writer. May be repeated for credit as topics change. *Prerequisite: German 103 or consent of instructor.* (5 units)

## 278 / German

### 309. ADVANCED GERMAN COMPOSITION

Practice in composition and short essay writing with emphasis on the development of good writing style and expressive vocabulary. Practical application in writing. *Prerequisite: German 103 or consent of instructor.* (5 units)

### 310. ADVANCED GERMAN CONVERSATION

Advanced practice of oral German stressing the discussion of topics based in part on current newspapers and periodicals. *Prerequisites: German 103 and German 200 or consent of instructor.* (5 units)

### 311. INTRODUCTION TO GERMAN LITERATURE

Survey course designed to introduce the student to the major literary movements and representative writers of German speaking cultures. *Prerequisite: German 103 or consent of instructor.* (5 units)

### 312. PRACTICAL TRANSLATION

Translation from German to English and from English to German of materials useful in business, politics and tourism. Use of language lab is required. *Prerequisite: German 103 or consent of instructor.* (5 units)

### 313. TECHNICAL AND SCIENTIFIC TRANSLATION

Translation from German to English and English to German of technical and scientific material. Use of language lab is required. *Prerequisite: German 103 or consent of instructor.* (5 units)

### 399. COMMUNITY SERVICE PROJECT

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## HEALTH SCIENCE

*Department of Health Science and Human Ecology  
Physical Sciences Building, Room 119  
887-7348*

Students interested in personal growth, community service, intellectual stimulation and professional career opportunities in the health and environmental fields may find the major in health science a method to achieve these goals.

The Department of Health Science and Human Ecology offers a bachelor of science degree in health science and a bachelor of science degree in foods and nutrition. In addition the department offers several certificates in specialized areas. The department emphasizes an ecological approach to health and attempts to provide students with the tools necessary to understand factors contributing to the promotion of general health and well-being and to the prevention of illness.

A Bachelor of Science in Health Science is appropriate for students preparing to become health professionals or desiring to work in environmental protection agencies, private businesses or industrial hygiene and safety. The program also is designed to provide a career ladder opportunity for persons currently engaged in health and environmental occupations or preparing for graduate work in public health, social or natural sciences.

The department offers a blend of traditional and modern approaches to education and career development in the health science field. It encourages multidisciplinary orientation, community interaction and a social outlook, while providing an appropriate grounding in the natural sciences. In their senior year, students spend time in community agencies, such as health departments, hospitals, industrial plants, environmental improvement agencies and consumer affairs offices, thus combining theory and practice.

Pre-professional students of medicine, dentistry, veterinary medicine or other science-related fields seeking a major in health science should refer to Page 87 of this bulletin and consult with a department advisor.

Students interested in fields such as health or environmental law, clinical chemistry, business, health physics, or any other academic discipline should complete the minimum requirements of the major and select appropriate electives in consultation with a department advisor.

### **Requirements for the Bachelor's Degree**

*Requirements for the bachelor of science degree in health science:* A total of 198 quarter units is required for the Bachelor of Science degree including Biology 100 or 202, 220 and 222; Mathematics 350; Chemistry 205, 206, 207 or 215, 216, 206 or 215, 216, 221; Physics 100, or 121 and 225, or 221 and 225; Health Science 120, 352, 355, 356, 366, 371, 451, 470, 491, 492A, 492B and 15 units of health science electives.

## 280 / Health Science

The requirements for the major are those for health science generalist. There are a number of areas of advisement within the major. Students planning careers in environmental health and occupational health, health education, industrial hygiene or health administration and planning must read the following statements carefully.

The environmental health and safety component of the curriculum is approved by the Sanitarian Registration Certification Advisory Committee of the California State Department of Health Services. Students who wish to obtain the Bachelor of Science in Health Science and be eligible for admittance to the state sanitarian registration examination as certified by the environmental health coordinator of the Department of Health Science and Human Ecology must complete the requirements of the major, and include within the major and electives the following courses: Health Science 120, 352, 353, 355, 356, 357, 366, 371, 372, 401, 451, 458, 470, 477, 491, 492A, 492B; Biology 100 or 202; Biology 220; Biology 222; Mathematics 110 or 120; Mathematics 350; Chemistry 215, 216, 221 (Chemistry 206 may substitute for Chemistry 225 upon approval of the environmental health coordinator); Physics 121, 122 (or 221, 222) and 225, 226.

Students interested in community health education should complete: Biology 100 or 202; Biology 220 and 222; Chemistry 205-206-207 or 215-216-206 or 215-216-221; Mathematics 350; Physics 100 or 121-225 or 221-225; Health Science 120, 301, 310 (or 435 or 440), 332 or 333 (or 471), 336, 342, 352, 355, 356, 361, 366, 371, 451, 470, 491, 492A, 492B.

Students interested in the area of industrial hygiene should complete: Biology 100 or 202; Biology 220 and 222; Chemistry 215, 216 and 206 or 221; Mathematics 110 or 120; Mathematics 350; Physics 121-122 or 221-222; Physics 225-226; Health Science 120, 352, 353, 355, 356, 363, 366, 371, 381, 425, 451, 470, 476, 491, 492A, 492B.

Students interested in health administration and planning must complete: Computer Science 125, Economics 200 or 202; Management 302, Accounting 311; Health Science 401, 415, and 422 (which may be substituted for Physics 100 or 121, 225 or 221, 225; Biology 100 or 202, and Biology 220; Chemistry 205, 206, 207 or 215, 216, 206 or 215, 216, 221). For their 15 units of health science electives, students in the health administration/planning area of advisement take Health Science 424, 427 and 525. Additionally, they will take Health Science 598. Upon approval of the advisor, Biology 220 may substitute for Biology 222.

An illustrated table of the curriculum requirements in all areas of advisement—health science generalist, industrial hygiene, community health education, health administration/planning and environmental health and safety—can be obtained by contacting the Department of Health Science and Human Ecology.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in health science must complete the requirements for the Bachelor of Science in Health Science as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program, or specific requirements for the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Requirements for a minor in health science:* Health Science 120, 352, 451 and 15 units of upper-division health science courses selected in consultation with an advisor.

*Requirements for the bachelor of science in foods and nutrition: refer to Page 267.*

**Departmental Honors:** A graduating senior will be awarded departmental honors in health science after meeting the following requirements: at least a 3.5 average in all courses required for the major taken at California State University, San Bernardino; at least a 3.0 average overall; and an A— or better in Health Science 595 (at least 5 units).

## Certificate Programs

The Department of Health Science and Human Ecology offers certificate programs in community mental health, health services administration and planning, and occupational safety and health. Additionally, the department participates in the interdisciplinary certificate in applied gerontology. Details concerning these programs are found beginning on Page 103. Furthermore, the department offers a series of two courses, Health Science 374 and 474 in audiometry which lead to a certificate of registration as a school audiometrist issued by the California State Department of Health Services. Further information is available from the department office.

### 120. HEALTH AND SOCIETY: AN ECOLOGICAL APPROACH

Nature and function of health in society through study of the fundamental concepts of living systems and their implication on the processes of health and illness in the human organism. Major health problems are analyzed to contribute to the student's understanding of his or her role as an individual and as a member of the community. Lecture and three hours of laboratory. (5 units)

### 301. PRINCIPLES OF HEALTH EDUCATION FOR HEALTH EDUCATORS

Foundations of the health education process. Role of a health educator in school, community, work and hospital settings, as well as a consultant in health promotion activities. Course does not fulfill the state health education requirement. *Prerequisite: Health Science 120 or consent of instructor.* (5 units)

### 310. HEALTH AND HUMAN SEXUALITY

Relationship between health and human sexuality with a theme of prevention of disease, disorder, and dysfunction through education. *Prerequisite: Health Science 120 or consent of instructor.* (5 units)

### 332. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL

Health education concepts and content applied specifically to grades K–6. Stresses communication and instruction in health education for the teacher/school nurse, emphasizing the uniqueness and personal nature of health; techniques of health education; recognition of health education and other aspects of normal health and diseases/disorders common in children. Conforms with the State Framework for Education in the Health Sciences. (5 units)

### 333. HEALTH EDUCATION IN THE SECONDARY SCHOOL

Health education concepts and content applied to grades 7–12. Stresses the personal nature of health instruction for the teacher/school nurse; the importance of individual responsibility in health related issues; characteristics of junior high and high school students and their relationship with health education techniques; recognition of health educational and other aspects of normal health and diseases/disorders common in adolescents and teenagers. Conforms with the State Framework for Education in the Health Sciences. (5 units)

### 334. SCHOOL HEALTH ADMINISTRATION AND PLANNING

Philosophical framework and history of the school health education program, including organization, administration, and legal aspects. Emphasis on the roles of school health administrators, teachers and nurses within the contexts of school health services, health instruction and healthful school living.



## 282 / Health Science

Some aspects of college health programs will also be discussed. Conforms with the State Framework for Education in the Health Sciences. (2½ units)

### 336. DRUG AND ALCOHOL USE AND ABUSE

Analysis of factors influencing human use or abuse of drugs, alcohol and other substances and their effects on the health and well-being of the individual, family and society. This course conforms with the State Framework for Education in the Health Sciences. (2½ units)

### 342. NUTRITION FOR YOUR HEALTH

Application of basic nutrition principles to the prevention of disease through the lifecycle; food choices that represent these principles; current trends, fads and fallacies in nutrition. May not be counted towards fulfilling requirements in the nursing major. Credit may not be received for both Health Science 342 and Health Science 358. (5 units)

### 352. ENVIRONMENTAL HEALTH I

Discussion of the physical, chemical and biological environments which impact on mankind's health and well-being. Principles of assessment, evaluation and control of environmental risks related to public health. Air, water, food and water pollution; ionizing radiation; land development; and environmental impacts. *Prerequisite: Health Science 120.* (5 units)

### 353. ENVIRONMENTAL HEALTH II

Laboratory course in environmental health. Methods of measuring and evaluating environmental and occupational health risks. Environmental health laws and regulations as well as compliance with current regulations. Laboratory and field experience for determining quality of air, water, food, soils and environments within buildings are included as well as instruction on noise control and hazardous waste disposal. Lecture and three hours of laboratory. *Prerequisites: Health Science 352, college-level biology and chemistry courses.* (5 units)

### 355. HEALTH, CONSUMER AND ENVIRONMENTAL LAW

Health laws and regulations, basis for their enactment and impact on facilities and programs, e.g. hospitals, health planning. Impact of environmental law on public health and mechanisms involved in protecting health consumers. Legal basis of the health care system and related aspects. (5 units)

### 356. HOUSING AND INSTITUTIONS

Basic health principles and environmental quality considerations associated with housing and institutions (for example, health care, educational, penal). Relationship of housing quality to physical, socio-economic and ethnic factors and their influence on health. (2½ units)

### 357. HAZARDOUS MATERIAL CONTROL

Major methods for the control of hazardous wastes from generation through disposal, including disease, environmental and legal aspects of hazardous wastes as well as discussion of various disposal techniques. *Prerequisites: college-level biology and chemistry courses.* (2½ units)

### 358. FOODS, NUTRITION AND HEALTH

Processing, storage, preservation and maturation of food and their effects on its composition, palatability, quality and safety. Credit may not be received for both Health Science 358 and Health Science 342. *Prerequisite: Chemistry 206 or equivalent.* (5 units)

### 359. INTERNATIONAL PERSPECTIVES ON HEALTH

Study and comparison of patterns in personal and community health in developing and industrialized nations. Introduction to the impact of behavioral, ecological, economic and governmental factors on health status and health care organization and delivery. Discussion of national, regional, and international health problems and programs. *Prerequisites: Health Science 120, and Anthropology 102 or Sociology 100 or Psychology 100.* (5 units)

### 361. PRINCIPLES OF ACCIDENT PREVENTION

Ecological and medical aspects of accident prevention in residential, work, educational, medical and recreational environments. Legal aspects and governmental organizations involved in accident prevention. (2½ units)

### 362. PRINCIPLES OF NUTRITION

Study of carbohydrates, fats, proteins, vitamins and minerals, their metabolic interrelationship and their role in normal human nutrition. Methods of assessing nutritional requirements during different stages of the life cycle. *Prerequisites: Chemistry 205-206-207 or consent of instructor.* (5 units)

### 363. TOXICOLOGY

Principles of chemical toxicity and relationships to public health, including general principles, intoxication and disease, dose response tests, mechanisms of action and principles of antidotal therapy. Specific toxicologic studies as related to various food, drug, consumer, industrial and environmental problems. *Prerequisites: college-level biology and chemistry courses.* (2½ units)

### 366. OCCUPATIONAL HEALTH AND THE WORK ENVIRONMENT

Identification, evaluation and control of hazards prevailing in the work environment. Factors affecting man in his working environment. Safety and health legislation. Field trips to selected industries. (2½ units)

### 367. HUMAN DISEASE MECHANISMS

Ecological and medical aspects of human disease and the body's response to the disease process, and the effects on normal function. *Prerequisites: Health Science 120 and Biology 223 and 224.* (5 units)

### 370. DIET AND DISEASE

Role of dietary modifications in prevention and treatment of pathological conditions in man. *Prerequisite: Health Science 358 or 362 or equivalent.* (2½ units)

### 371. COMMUNITY HEALTH SERVICES

Consideration and comparison of traditional and current programs in official and voluntary health agencies. (5 units)

### 372. ENVIRONMENTAL ADMINISTRATION AND ENVIRONMENTAL IMPACT REPORTING

Principles and procedures of environmental health administration, emphasizing the role of the government and the citizen. Review of federal, state and local legislation and guidelines essential in preparing an environmental impact report. (5 units)

### 374. BASIC AUDIOMETRY AND HEARING PROBLEMS

Examination of the anatomy and physiology of the auditory mechanism. Nature of the acoustic stimulus, hearing disorders, problems of the hard of hearing and pure-tone audiometry. First course in a two-course series (374, 474) leading to the certificate of registration as school audiometrist, granted by the California Department of Health Services upon successful completion. (5 units)

### 381. OCCUPATIONAL SAFETY

Principles of industrial safety, including general principles; accident control; industrial, mechanical, electrical, chemical and flammability hazards; fire and explosion protection; accident investigation; industrial safety inspections; record keeping; safety training and emergency planning; methods of industrial safety management as a unifying theme. (5 units)

### 399. COMMUNITY SERVICE PROJECT

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

### 401. LAND USE: HEALTH ASPECTS

Health considerations and their impact on land-use patterns; health planning and environmental health aspects of land use with reference to environmental impact reports; land-use regulatory mechanisms relating to health. (5 units)

## 284 / Health Science

### **404. WOMEN'S HEALTH ISSUES**

Discussion of the physical, mental/emotional and related aspects of health issues for women. (2½ units)

### **415. MEDICAL CARE ORGANIZATIONS**

Analysis of the organization of health and medical care services, resources, facilities, financial aspects and other related topics. *Prerequisite: Health Science 371 or consent of instructor.* (5 units)

### **421. COMMUNITY MENTAL HEALTH**

Mental health care delivery system with emphasis on a community approach to prevailing problems and issues. Methods of evaluating community and school mental health education programs; survey of available resources. (5 units)

### **422. HEALTH PLANNING**

Health planning systems and procedures. *Prerequisite: Health Science 371 or consent of instructor.* (5 units)

### **423. HEALTH ASPECTS OF AGING**

Issues and problems affecting the health status of the aged. Medical aspects of patients in long-term care facilities. (5 units)

### **424. HEALTH FACILITIES PLANNING**

Activities in health care facilities planning, for example, architectural, engineering, contractual, environmental and other regulatory aspects. Facility planning processes, environmental forces, administrative coordination and historical development. (5 units)

### **425. HEARING CONSERVATION AND NOISE MEASUREMENT**

Principles of audiology and noise measurements and their application to environmental and industrial hearing conservation programs. (2½ units)

### **427. HOSPITAL ADMINISTRATION**

Organization and administration of hospital facilities including planning and evaluation of services. Role of the hospital as part of the community. *Prerequisites: Health Science 371 and Management 302 or consent of instructor.* (5 units)

### **430. FOOD-BORNE ILLNESSES AND THEIR PREVENTION**

Food-borne illnesses and food poisoning of microbial and chemical origins, causation and environmental control measures; proper environmental control measures; and proper environmental health conditions involved in storage, transportation and service of foods in order to minimize health dangers. *Prerequisite: Health Science 352.* (5 units)

### **435. CHILD AND YOUTH DEVELOPMENT: HEALTH ASPECTS**

Health needs and problems of the school-age child; concepts of appraisal, services and healthful environment. This course conforms with the State Framework for Education in the Health Sciences. (5 units)

### **440. FAMILY HEALTH**

Health aspects of the home and family, including qualifications for marriage, prenatal care, pregnancy, infant and maternal mortality, children's disease, home accidents, health plans for the family and health problems associated with old age. This course conforms with the State Framework for Education in the Health Sciences. (2½ units)

### **451. PRINCIPLES OF EPIDEMIOLOGY**

Distribution and dynamics of human health problems; principles and procedures used to determine circumstances under which disease occurs or health prevails. The broadened scope of epidemiology is examined through case studies and community health approach. (5 units)

**452. SPECIAL TOPICS IN HEALTH SCIENCE AND HUMAN ECOLOGY**

Examination of selected topics of current interest in health science. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (5 units)

**455. ORGANIZATION AND MANAGEMENT OF LONG-TERM CARE FACILITIES**

Examination of the professional administrative role and managerial concepts in long-term facilities, including nursing homes. *Prerequisites: Health Science 371 and Management 302 or consent of instructor.* (5 units)

**458. VECTOR AND ZONOTIC DISEASE CONTROL**

Identification and control of vector-caused and zoonotic diseases. Discussion of natural and chemical methods of control and their impact on health and environmental quality. *Prerequisites: college-level biology and chemistry courses.* (5 units)

**460. STRATEGIC PLANNING AND MARKETING IN THE HEALTH CARE SYSTEM**

Strategy-oriented management planning process, basic approaches and methodologies employed in strategic planning and health care marketing; economic and political forces which give form and shape to the health care marketplace. (5 units)

**461. FOOD SYSTEMS AND MEAL MANAGEMENT**

Factors involved in management of foods including purchase, meal selection, preparation, service, management of time, money and energy in meal preparation. (5 units)

**470. HEALTH BEHAVIOR AND COMMUNITY HEALTH EDUCATION**

Factors influencing the community's response to public health programs and individual's health behavior. Analysis of community health problems, the process of decision-making and health education activities of governmental and non-governmental organizations. (5 units)

**471. HEALTH PROMOTION PLANNING AND EVALUATION**

Introduction to the methods and processes of health promotion and change programs, for both individuals and groups. Emphasis in program design, implementation and evaluation. *Prerequisite: Health Science 470.* (5 units)

**474. ADVANCED AUDIOMETRY**

Hearing tests, their objectives and uses for diagnostic and rehabilitative purposes. Techniques for administering auditory tests and the interpretation of their results emphasizing pure-tone audiometry. Second course in a two-course series (374, 474) leading to the certificate of registration as school audiometrist, granted by the California Department of Health Services upon successful completion. *Prerequisite: Health Science 374 or 425 or equivalent.* (5 units)

**476. INDUSTRIAL HYGIENE**

Toxic chemicals in the industrial environment, their influence on human health and their relationship to occupational medicine and the administration of industrial hygiene programs. *Prerequisites: college-level biology and chemistry courses, or consent of instructor.* (5 units)

**477. ENVIRONMENTAL HEALTH ENGINEERING**

Methods used in designing systems which mitigate environmental contamination, including sewage, hazardous waste, solid waste, air pollution and the design of residential, institutional and commercial buildings. (5 units)

**490. HEALTH SERVICE ADMINISTRATION**

Introduction and analysis of management theory and practice as they are applied in the mixed priority environment of the health services organization. Planning, organizing staffing, directing and evaluating functions. Topics of discussion include strategy, decision, and the effective and efficient use of resources in home health, ambulatory, acute, long term and public health services. *Prerequisites: Accounting 311, Management 302, Health Science 415.* (5 units)

## 286 / Health Science

### 491. PRE-FIELD STUDY PRACTICUM

Preparatory work for field assignments through classroom discussion, agency contacts and experience. (5 units)

### 492. FIELD STUDY: ACTION/RESEARCH IN HUMAN ECOLOGY AND HEALTH

Individual and team field studies and research in agencies with activities relevant to career goals and interests. *Prerequisite: Health Science 491 or consent of instructor.*

A. (5 units)

B. (5 units)

C. *Corequisite: Health Science 492A.* Open only to students with a concentration in environmental health. Units awarded are not counted toward the 198 quarter requirement for the major. (2½ units)

D. *Corequisite: Health Science 492B.* Open only to students with a concentration in environmental health. Units awarded are not counted toward the 198 quarter requirement for the major. (2½ units)

### 493. INTERNSHIP IN DIETETICS

Full-time clinical/agency internship taken in the senior year of course work. Courses A, B and C together total 1200 hours.

A. (10 units)

B. (10 units)

C. (10 units)

### 525. HEALTH DATA ANALYSIS AND DEMOGRAPHY

Introduction to analysis of health data using statistical procedures, development of skills for determining analytical techniques and procedures for interpretation and presentation of resultant data; examination of sources and evaluation of demographic data and relationships to such topics as fertility, morbidity, mortality, population projection, life tables, migration. *Prerequisites: Health Science 451 and Mathematics 350 or consent of instructor.* (5 units)

### 590. CURRENT TOPICS IN HEALTH ADMINISTRATION AND PLANNING

Presentation and analysis of a particular issue or topic in health services administration or planning. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (2½ units)

### 595. INDEPENDENT STUDY

Research in special topics including library studies and/or laboratory work under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

### 598. RESEARCH METHODOLOGY IN HEALTH SCIENCE

Research methods and application to contemporary health and environmental problems. Health data analysis and development of skills for determining appropriate analytical techniques and procedures. *Prerequisite: Mathematics 350 or consent of instructor.* (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only*

### 600. SEMINAR IN HEALTH AND HUMAN ECOLOGY

Philosophical foundations of health and human ecology. Historical, contemporary and professional perspectives. (5 units)

### 610. ORGANIZATION MANAGEMENT AND PLANNING OF HEALTH

Organizational, environmental, socio/political and behavioral aspects of health and health delivery systems. Ecological perspectives on planning and administrative approaches in developing, modifying and sustaining modern health systems. *Prerequisites: Health Science 371 and 600.* (5 units)

**630. ADMINISTRATION OF HEALTH CARE PROGRAMS**

Economic forces which impact on health and health delivery systems and an assessment of the distribution of financial resources required to sustain these systems. Emphasis on trends in financing health care and the economic influence of reimbursement policies on financial decision-makers. *Prerequisites: Finance 503 and Health Science 371, 600 and 610.* (5 units)

**632. HEALTH POLICY AND DECISION-MAKING**

Issues and problems in the area of health administration. Emphasis on quality assurance, legal aspects, policy development and decision-making as related to health care planning operations. *Prerequisites: Health Science 371, 600 and 610.* (2½ units)

**650. ADMINISTRATION OF ENVIRONMENTAL MANAGEMENT PROGRAMS**

Analysis of local, state and national environmental and occupational health programs including program planning and evaluation. Comparative study of international environmental management problems, styles and techniques. *Prerequisites: Health Science 352, 600 and 610.* (5 units)

**670. DIRECTED READINGS**

Directed independent study of classic and contemporary writings in a defined area combined with scheduled individual and small group conferences with supervising faculty member. *Prerequisites: graduate standing and consent of the instructor.* (5 units)

## HISTORY

*Department of History  
Administration Building, Room 130  
887-7239*

History has been called the “extension of memory” which enables one to utilize past experiences. The study of history nurtures and refines a broad spectrum of skills which make not only for good historians and teachers, but for good workers in many fields where men and women are sought who can read critically, analyze and write. In fact, while teaching and research have traditionally been the avenues history majors have followed, a multitude of career opportunities has always existed for those who like history but do not wish to become teachers. The skills history majors learn and refine in thinking, research, problem defining and solving, speaking and writing—in conjunction with skills acquired from other selected courses—ideally suit them for positions in the business world and with governmental agencies.

The History Department has developed a major around a core of five courses which present a broad survey of American and European history and an introduction to the nature of historical study. To meet the remainder of the requirements for the major, the student may choose from a wide spectrum of courses.

Currently, the department consists of faculty specializing in the areas of American, European, Asian and Latin American history. Majors are also offered optional programs emphasizing Black or Mexican-American studies.

The history major involves a two-track system, Track A (single subject waiver for prospective secondary school teachers) and Track B (standard major).

Lower-division courses may not be taken by students who have received credit for work in the subject in advance of the lower-division course, except where permission is granted by the department.

### **Requirements for the Bachelor's Degree**

*Requirements for the major Track A:* A core of 52.5 units consisting of the following: 15 units in American history to include History 200, 201 and 5 units chosen from the following: History 334, 350, 351, 354, 356, 357, 359, 421, 513, 540, 556, 560, 565, 566. In lieu of History 200, any two of the following are acceptable: History 350, 351, 354. In lieu of History 201, any two of the following are acceptable: History 356, 357, 359; 15 units in world history to be chosen from the following: Social Sciences 140, 142, 144, History 380, 589; 2½ units in California history: History 370B; 10 units in modern European history: History 300, 301. In lieu of History 300, both History 402 and 403 must be taken. In lieu of History 301, any two of the following are acceptable: History 408, 503, 535; 5 units in non-western history from among the following: Social Sciences 165, 300, 304, History 382, 390, 430, 440, 469, 470; 5 units in the study of history: History 490; and electives totaling 22.5 units to be chosen from available upper-division his-

tory electives; with the approval of the departmental advisor, up to 5 units of upper-division course work in related fields may be counted toward the upper-division elective course requirement in the major.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in history must complete Track A of the Bachelor of Arts in History as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program, or specific requirements for the single subject credential see Page 208 or contact the School of Education Credentials Office.

*Requirements for the major Track B:* 55 units in history, including History 200, 201, 300, 301 (or their equivalents as described below) and 490, and at least 30 units of other upper-division course work in history, at least ten units from the following list of nonwestern history courses: 331, 382, 390, 430, 440, 469 and 470. With the approval of the departmental advisor, up to 10 units of upper-division course work in related fields may be counted toward the upper-division course requirement in history. Students are encouraged to take a complete sequence of courses in a foreign language appropriate to their area interests in the history major.

Acceptable equivalents to the required courses in the major are as follows. In lieu of History 200, any two of the following: History 350, 351, and 354. In lieu of History 201, any two of the following: History 356, 357, and 359. In lieu of History 300, both History 402 and 403. In lieu of History 301, both History 408 and 535. Students who complete both Social Sciences 142 and 144 will be allowed to complete European history course requirements either by taking History 300 and 301 or by taking two of the following: History 402, 403, 408, 500 and 535.

*Requirements for a minor in history:* 30 units, at least 20 of which must be on the upper-division level, to be selected in consultation with a history advisor.

A degree in history with an emphasis in either Black or Mexican-American studies should include the following: History 200, 201, 300, 301 and 490. The remaining 25 units shall be selected by the student and advisor from the appropriate ethnic studies concentration; 15 of these units must be in history. Courses specified will be listed as an option contract to be filed with the ethnic studies coordinator.

*Departmental Honors:* Will be awarded upon graduation to students majoring in history who have earned a 3.5 grade-point average in all history courses attempted, completed at least half of all work in history at this University and been recommended for departmental honors by the history faculty.

## Master of Arts

The University offers a Master of Arts in Education, with an option in history, for secondary teachers. Details on this graduate program may be secured from the Department of History or the School of Education.

### 200. UNITED STATES HISTORY TO 1877

Survey of the history of the United States from the colonial beginnings to 1877. This course meets the state code requirements in the U. S. Constitution and U. S. history. (5 units)

### 201. UNITED STATES HISTORY, 1877 TO THE PRESENT

Survey of the history of the United States from 1877 to the present. This course meets the state code requirement in U. S. history. (5 units)



## **290 / History**

### **300. EARLY MODERN EUROPE, THE RENAISSANCE TO 1815**

Institutions, culture, and political development of Europe from the Renaissance to the end of the Napoleonic Wars. (5 units)

### **301. MODERN EUROPE, 1815 TO THE PRESENT**

Institutions, culture, and political development of Europe from the Congress of Vienna to the present. (5 units)

### **312. HISTORICAL ARCHAEOLOGY**

Use of archaeological methods to study historic peoples. Historical and archaeological methods and their results. Focus will be primarily on North America from A.D. 1492 to modern times. (Also offered as Anthropology 312. Students may not receive credit for both.) (5 units)

### **322. THE CLASSICAL WORLD**

Survey of major developments in Western civilization from the rise of Greece to the fall of Rome. (5 units)

### **325. THE AMERICAN MILITARY EXPERIENCE**

American military development from the Civil War to the present day.

A. 1860–1918 (2½ units)

B. 1919–1942 (2½ units)

C. 1942–Present (2½ units)

### **331. BLACK HISTORY I: THE AFRICAN EXPERIENCE**

Origin of sub-Saharan cultures and development of African civilizations through the 18th century; special emphasis on West Africa and the region's relationship to Black people of North America. (5 units)

### **334. BLACK HISTORY II: THE AMERICAN EXPERIENCE**

Black people in America from the 17th century to the present day. (5 units)

### **350. THE AMERICAN COLONIES 1607–1783**

The thirteen colonies from European origins to the attainment of independence. (5 units)

### **351. THE EVOLUTION OF AMERICAN DEMOCRACY, 1783–1840**

Analysis of the development of American society, politics and economy during the Confederation, Federalist, Jeffersonian and Jacksonian Eras. (5 units)

### **354. CIVIL WAR AND RECONSTRUCTION**

Background and causes of the Civil War and the problems of Reconstruction. (5 units)

### **356. THE UNITED STATES, 1877–1917**

Transformation of the nation between the end of Reconstruction and entrance into World War I. (5 units)

### **357. THE UNITED STATES, 1917–1945**

Principal developments in American life from World War I to the end of World War II. (5 units)

### **359. THE UNITED STATES SINCE 1945**

Major changes in the United States since the end of World War II. (5 units)

### **370. HISTORY OF CALIFORNIA**

Political, economic, social and cultural development of California from Spanish times to the present.

A. California to 1890. (2½ units)

B. California 1890–Present. This segment of the course will meet the state code requirement in state and local government. (2½ units)

**380. HISTORY OF WORLD RELIGIONS**

Historical development of Judaism, Hinduism, Buddhism, Christianity and Islam. (5 units)

**382. HISTORY OF THE MIDDLE EAST**

History of the Middle East from the time of Muhammad the Prophet to the modern day. (5 units)

**390. HISTORY OF MEXICO**

Survey of Mexican history from early Indo-American civilizations to the present. (5 units)

**391. CHICANO HISTORY**

Mexican-Americans in the United States from the Colonial period to the present, with special emphasis on the Southwest. (5 units)

**395. TOPICS IN HISTORY**

Examination of topics of interest in history. May be repeated for credit as topics change. (5 units)

**396. TOPICS IN HISTORY**

Examination of topics of interest in history. May be repeated for credit as topics change. (2½ units)

**399. COMMUNITY SERVICE PROJECT**

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of four units. No more than four units of credit for community service project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: a project proposal must be approved by the department in advance of enrollment.* (Credit to be arranged: 1 or 2 units)

**402. RENAISSANCE AND REFORMATION**

Principal political, economic, intellectual and religious developments in Europe from about 1300 to 1648. (5 units)

**403. THE AGE OF ABSOLUTISM AND ENLIGHTENMENT**

The period from 1648 to 1789, emphasizing the development of the modern state, the new scientific movement and the growth of revolutionary ideas. (5 units)

**408. THE DEVELOPMENT OF 20th CENTURY EUROPE, 1890-1945**

Europe from the turn of the century period to the end of World War II. (5 units)

**421. ECONOMIC HISTORY OF THE UNITED STATES**

Economic history of the United States from the founding of the colonies to the present. (Also offered as Economics 421. Students may not receive credit for both.) (5 units)

**430. CHINA 1895-PRESENT**

Institutions, culture, society, economy and political development of China from the Sino-Japanese War (1894-95) to the present. (5 units)

**440. JAPAN 1868-PRESENT**

Institutions, culture, society, economy and political development of Japan from the Meiji Restoration to the present. (5 units)

**469. COLONIAL LATIN AMERICA**

Survey of Spanish colonial system beginning with discovery of America and continuing to the independence period. (5 units)

## 292 / History

### 470. MODERN LATIN AMERICA

Survey of the development and interaction of modern Latin American institutions in the major nations of Central and South America. (5 units)

### 490. THE STUDY OF HISTORY

Introduction to the nature of history through a consideration of the problems of historical knowledge and of the works of major historians of the past. (5 units)

### 500. TUDOR AND STUART ENGLAND

Principal political, social, economic and religious developments of England from 1485 to 1688. (5 units)

### 503. EUROPE IN THE NUCLEAR AGE

Europe since 1945, emphasizing the search for political and economic unity and evolving relations with the two nuclear super powers. (5 units)

### 513. WOMEN IN U.S. HISTORY

History of women in the United States from colonial times to the present. Special emphasis on demographic changes, labor, the family, and ethnic and class distinctions among women. (5 units)

### 535. STUDIES IN EUROPEAN NATIONAL HISTORY

Historical development of individual European nations (for example, Germany, France, Great Britain, Russia, Spain) in the modern period. May be repeated for credit as topics change. (5 units)

### 540. CONSTITUTIONAL HISTORY OF THE UNITED STATES

American constitutional development from English and European origins to the present day. This course meets the state code requirement in U. S. history and U. S. Constitution. *Prerequisite: History 200 or 201, or Political Science 410 or consent of instructor.* (5 units)

### 556. FOREIGN RELATIONS OF THE UNITED STATES

Survey of American foreign policy with special emphasis on America's rise to world power in the 20th century. (5 units)

### 560. HISTORY OF THE AMERICAN WEST

Survey of the western expansion of the American nation. (5 units)

### 565. ETHNIC MINORITIES IN AMERICAN HISTORY

Historical perspective of the major ethnic groups, their efforts to assimilate and their interaction with American society. (5 units)

### 566. ETHNIC MINORITIES IN THE AMERICAN SOUTHWEST: PAST AND PRESENT

A comparative approach to the historical and contemporary experiences of Chicanos, Indians, Asians and other ethnic minorities in the Southwestern/Western United States. (5 units)

### 575. INTERNSHIP IN HISTORY

Supervised work and study in work situations involving historical skills. May be repeated once for credit. *Prerequisites: major in history; one introductory statistics course; Information Management 220, and Accounting 311; or consent of the department.* (5 units)

### 589. REVOLUTIONS IN HISTORY

Nature and causes of revolutions from an historical as well as a broad social science perspective; both revolutions and revolutionists from different parts of the world are examined. (5 units)

### 595. INDEPENDENT STUDY

Special topics in historical research. A total of five units in History 595 may be applied toward the history major and 10 units in History 595 may be applied toward graduation. *Prerequisites: a min-*

*imum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 2 to 5 units)*

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean. (5 units)*

*600-level courses are open to postbaccalaureate and graduate students only*

**603. SEMINAR IN MODERN MILITARY HISTORY**

Analyses of selected military operations since World War II. May be repeated once for credit, as topics change, with consent of student's advisor. (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean. (5 units)*

## HUMAN DEVELOPMENT

*Department of Psychology  
Physical Sciences Building, Room 219  
887-7226*

The Human Development major is an interdisciplinary program of study of the processes and changes that characterize human development. Course offerings are drawn primarily from the departments of psychology, sociology, anthropology and biology with electives available from other departments, including education, and from the field of ethnic studies. Consistent with the interdisciplinary field of life-span development, the major provides the important advantage of promoting a holistic approach to development that no single discipline can offer.

Students selecting the B.A. in Human Development, with the study of people as its major theme, typically choose careers related to working with people when they graduate. The major prepares graduates to work in counseling and guidance, personnel, teaching, probation or in health delivery settings. The program also is designed to provide students with the option of selecting a concentration within the major—either in child development or in aging. Students selecting the concentration in aging may also earn a certificate in Applied Gerontology (see Page 110 or a human development advisor for details). The child development concentration within the major is designed specifically to prepare students for occupations or professions that call for child development specialists, including, for example, infant care, preschool management, playground and recreation supervision, and other positions involving work with young children and their families. The aging concentration is designed to prepare graduates for careers related to servicing the needs of adults or the elderly, as in positions in community agencies. The program also provides academic preparation for graduate-level training in various fields relating to human development, such as in psychology, social work, law, education and anthropology.

### Requirements for the Bachelor's Degree

*Requirements for the major:*

*Lower-division core:*

**BIOLOGY 100. TOPICS IN BIOLOGY**

**PSYCHOLOGY 100. INTRODUCTION TO PSYCHOLOGY**

**PSYCHOLOGY 201. DEVELOPMENTAL PSYCHOLOGY**

**SOCIOLOGY 100. THE STUDY OF SOCIETY**

*Upper-division core:***ANTHROPOLOGY 331. ANTHROPOLOGY OF HUMAN DEVELOPMENT****PSYCHOLOGY 358. COGNITIVE DEVELOPMENT****PSYCHOLOGY 384. PERSONALITY AND SOCIAL DEVELOPMENT****SOCIOLOGY 339. SOCIALIZATION****BIOLOGY 315. INTRODUCTION TO HUMAN EMBRYOLOGY**

or

**BIOLOGY 316. HUMAN GENETICS***Practicum:***PSYCHOLOGY 575. INTERNSHIP IN PSYCHOLOGY**

or

**SOCIOLOGY 575. INTERNSHIP IN SOCIOLOGY AND SOCIAL WORK**

The internship setting selected must correspond to the student's course work and emphasis within the human development program and be approved, in advance, by a human development advisor. This internship is intended to provide a senior-level, capstone experience which is highly structured and carefully designed to integrate the theoretical knowledge gained in the core courses and concentrated electives with the practical, career objectives of each student to focus on the common concern for human development throughout the life-span. In order to blend this experience and educational background, the internship course will require introductory group sessions to prepare the students for the work experience; a daily log or journal requiring the student to analyze, reflect and integrate the experiential learning; a paper summing up the previous course work and applying this broad store of knowledge to a practical situation; and regular meetings with other interns and faculty to assure a sharing of common experiences and a deepening of individual understanding of how particular problems in the field relate to the whole.

*Areas of Concentration:*

The human development program provides for broad interdisciplinary study of development over the life-span. Human development majors may specialize within the program by choosing a concentration in either child development or in aging. Students selecting one of these optional concentrations will be required to complete the three courses (15 units) indicated below for the respective concentrations. Students not choosing a concentration will select 25 units from the list of approved electives. All electives should be chosen in consultation with a human development advisor.

*Child Development Concentration (15 units)***ANTHROPOLOGY 330. CROSS-CULTURAL CHILD REARING PRACTICES****PSYCHOLOGY 325. PSYCHOLOGY OF INFANCY AND EARLY CHILDHOOD****PSYCHOLOGY 391. PSYCHOPATHOLOGY OF CHILDHOOD**

Note: Students selecting the child development concentration must select Biology 315 for their upper-division core requirement in biology.

*Aging Concentration (15 units)***HEALTH SCIENCE 423. HEALTH ASPECTS OF AGING**

## 296 / Human Development

**PSYCHOLOGY 329. PSYCHOLOGY OF ADULTHOOD AND AGING**

**SOCIOLOGY 330. SOCIAL GERONTOLOGY**

### *Approved electives:*

Students selecting a concentration must take 10 units of approved electives, at least five of which must be upper-division. Students not selecting a concentration must take 25 units of approved electives, at least 20 units of which must be upper-division. All approved electives should be chosen in consultation with a human development advisor.

**ANTHROPOLOGY 100. INTRODUCTION TO ANTHROPOLOGY: HUMAN EVOLUTION**

**ANTHROPOLOGY 102. INTRODUCTION TO ANTHROPOLOGY: CULTURE AND SOCIETY**

**\* ANTHROPOLOGY 330. CROSS-CULTURAL CHILD REARING PRACTICES**

**BIOLOGY 314. BIOLOGY OF HUMAN SEXUALITY**

**\* BIOLOGY 315. INTRODUCTION TO HUMAN EMBRYOLOGY**

**\* BIOLOGY 316. HUMAN GENETICS**

**BIOLOGY 321. EVOLUTION**

**EDUCATION 330. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION**

**EDUCATION 530. PSYCHOLOGY AND EDUCATION OF EXCEPTIONAL CHILDREN**

**ENGLISH 320. CHILDREN'S LITERATURE**

**\* HEALTH SCIENCE 423. HEALTH ASPECTS OF AGING**

**HEALTH SCIENCE 435. CHILD AND YOUTH DEVELOPMENT: HEALTH ASPECTS**

**HEALTH SCIENCE 440. FAMILY HEALTH**

**POLITICAL SCIENCE 450. POLITICAL SOCIALIZATION**

**PSYCHOLOGY 315. COMMUNICATION PROCESSES**

**\* PSYCHOLOGY 325. PSYCHOLOGY OF INFANCY AND EARLY CHILDHOOD**

**\* PSYCHOLOGY 329. ADULTHOOD AND AGING**

**PSYCHOLOGY 337. PSYCHOLOGICAL DEVELOPMENT OF THE BLACK AMERICAN**

**PSYCHOLOGY 347. PSYCHOLOGICAL DEVELOPMENT OF THE CHICANO**

**PSYCHOLOGY 390. ABNORMAL PSYCHOLOGY**

**\* PSYCHOLOGY 391. PSYCHOPATHOLOGY OF CHILDHOOD**

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\* These courses may be used as electives if they have not already been used in the core or concentration.

**PSYCHOLOGY 431. EXPERIMENTAL PSYCHOLOGY: DEVELOPMENTAL**

**\* SOCIOLOGY 330. SOCIAL GERONTOLOGY**

**SOCIOLOGY 340. SOCIOLOGY OF THE FAMILY**

**SOCIOLOGY 341. MARRIAGE AND FAMILY AMONG BLACKS**

**SOCIOLOGY 342. THE CHICANO FAMILY**

**SOCIOLOGY 344. SEX ROLES: THE LIFE CYCLE**

**SOCIOLOGY 352. JUVENILE OFFENDER**

**SOCIOLOGY 354. DEVIANT BEHAVIOR**

Students may select one of the following statistics courses for lower-division elective credit for the major: Psychology 210 or Social Sciences 215.

Occasionally topic and seminar courses are offered in various disciplines throughout the college that would be relevant for human development majors. Students interested in receiving elective credit toward the major for these courses should contact the coordinator of the human development program.

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\* These courses may be used as electives if they have not already been used in the core or concentration.



## HUMANITIES

*School of Humanities*  
*Pfau Library Building, Room 239*  
*887-7441 or*  
*Creative Arts Building, Room 180*  
*887-7691*

Humanities is a multidisciplinary major encompassing the study of cultural concepts, principles and values from the beginning of history to the present. An awareness of the past, an understanding of major influences and a perception of their relationships give meaning to the present, while the breadth of the discipline provides analytical skills needed in today's complex world as well as offering pragmatic benefits in business and industry.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:*

*Core courses:*

**HUMANITIES 300. INTRODUCTION TO HUMANITIES**

**HUMANITIES 305. WORLD MYTHOLOGY**

**HUMANITIES 310. HUMANITIES IN THE MODERN WORLD**

**HUMANITIES 315. HUMANISTIC STUDIES IN CONTEXT**

**HUMANITIES 400. HUMANITIES SEMINAR**

*Foreign language proficiency:*

15 units of foreign language or equivalent proficiency

*Arts:* 20 units selected from the following with at least five units chosen from each department:

### **ART**

**ART 306. GREEK AND ROMAN ART**

**ART 308. MEDIEVAL ART**

**ART 311. ART OF THE UNITED STATES TO THE END OF THE NINETEENTH CENTURY**

**ART 321. RENAISSANCE ART**

**ART 327. BAROQUE AND ROCOCO ART**

**ART 328. MEXICAN ART**

**ART 413. MODERN ART OF THE UNITED STATES**

**ART 423. NINETEENTH CENTURY EUROPEAN ART**

**ART 424. MODERN EUROPEAN ART**

**MUSIC**

**MUSIC 350. MUSIC OF OTHER CULTURES**

**MUSIC 351. MEXICAN AND CHICANO MUSIC**

**MUSIC 352. AFRO-AMERICAN MUSIC**

**MUSIC 360. MUSIC IN THE UNITED STATES**

**MUSIC 400. STUDIES IN COMPOSERS**

And/or

With appropriate background in theory:

**MUSIC 304. HISTORY OF MUSIC I**

**MUSIC 305. HISTORY OF MUSIC II**

**MUSIC 306. HISTORY OF MUSIC III**

**THEATRE ARTS**

**THEATRE ARTS 302. ANALYSIS OF DRAMA \***

**THEATRE ARTS 445. THE CAMERA EYE**

**THEATRE ARTS 450. CLASSICAL DRAMA \***

**THEATRE ARTS 451. MYSTERY TO MELODRAMA**

**THEATRE ARTS 455. MODERN DRAMA I**

**THEATRE ARTS 456. MODERN DRAMA II**

**THEATRE ARTS 461. AMERICAN DRAMA**

**THEATRE ARTS 475. SHAKESPEARE I \***

**THEATRE ARTS 476. SHAKESPEARE II\***

*Letters:* 20 units selected from the following with at least five units chosen from each department:

**ENGLISH**

**ENGLISH 301. ANALYSIS OF POETRY**

**ENGLISH 302. ANALYSIS OF DRAMA \***

**ENGLISH 303. ANALYSIS OF PROSE FICTION**

**ENGLISH 315. STUDIES IN LITERARY GENRES**

**ENGLISH 333. MYTH AND EPIC**

**ENGLISH 385. INTRODUCTION TO LITERARY CRITICISM**

**ENGLISH 442. MODERN POETRY**

**ENGLISH 446. MODERN FICTION**

**ENGLISH 450. CLASSICAL DRAMA \***

**ENGLISH 475. SHAKESPEARE I \***

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\* This course may be taken for either art or letters credit. Students may not receive credit for both.

## **300 / Humanities**

### **FOREIGN LANGUAGE**

**FOREIGN LANGUAGES 450. LITERATURE IN TRANSLATION: FRENCH and/or GERMAN**

**SPANISH 450. MEXICAN LITERATURE IN TRANSLATION**  
and/or  
with appropriate language facility:

**FRENCH 311. MASTERPIECES OF FRENCH LITERATURE I**

**FRENCH 312. MASTERPIECES OF FRENCH LITERATURE II**

**FRENCH 313. MASTERPIECES OF FRENCH LITERATURE III**

**FRENCH 314. MASTERPIECES OF FRENCH LITERATURE IV**

**GERMAN 308. READINGS IN GERMAN LITERATURE**

**GERMAN 311. INTRODUCTION TO GERMAN LITERATURE**

**SPANISH 400. MASTERPIECES IN SPANISH AND SPANISH AMERICAN LITERATURE**

### **PHILOSOPHY**

**PHILOSOPHY 301. GREEK AND ROMAN PHILOSOPHY**

**PHILOSOPHY 305. MODERN PHILOSOPHY, 16TH-19TH CENTURY**

**PHILOSOPHY 307. CONTEMPORARY PHILOSOPHY**

**PHILOSOPHY 316. DISCOVERY AND METHOD**

**PHILOSOPHY 330. PHILOSOPHY OF LANGUAGE**

**PHILOSOPHY 340. PHILOSOPHY OF MAN**

**PHILOSOPHY 350. ETHICS**

**PHILOSOPHY 370. PHILOSOPHY OF ART AND CRITICISM: AESTHETICS**

*Requirements for the minor (courses must be selected in consultation with a humanities advisor):* Humanities 300; 10 units chosen from Humanities 305, 310, 315, 400; plus 20 units in other Humanities departments' courses to be chosen from a list of appropriate courses on file in the School of Humanities Office.

### **300. INTRODUCTION TO HUMANITIES**

Introduction to the ways individuals in the arts and letters approach their subject matter. (5 units)

### **305. WORLD MYTHOLOGY**

Mythological themes (for example, creation, death) and their interpretations by various cultures. (5 units)

### **310. HUMANITIES IN THE MODERN WORLD**

Nature of institutions and their relation to human values and the quality of life as exemplified by particular contemporary issues. May be repeated as topics change. (5 units)

### **315. HUMANISTIC STUDIES IN CONTEXT**

Major works or figures (for example, the Parthenon, Dante) as representatives of their contemporary world and as influences on subsequent ages. May be repeated for credit as topics change. No more than 10 units are applicable to the humanities major. (5 units)

**319. MYTH, METAPHOR AND SYMBOL**

Nature and function of myth and mythmaking; ways in which figurative language is used in different disciplines to create models for understanding the world and human experience. (5 units)

**325. PERSPECTIVES ON GENDER**

This interdisciplinary course uses scientific, humanistic and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Social Sciences 325 and Natural Sciences 325. Students may receive credit for only one of these courses.) (5 units)

**330. ARTS AND IDEAS**

An interdisciplinary exploration of several ways in which different arts exhibit ideas and various ideas stimulate our understanding of and pleasure in the arts. (5 units)

**344. IDEAS IN AMERICAN CULTURE**

An examination of recurring ideas in American culture, from Colonial times to the present, as seen in literature, art and thought. (5 units)

**350. LITERARY AND CULTURAL TRADITIONS OF WESTERN EUROPE**

Major Western European aesthetic tendencies as seen in selected literary masterpieces and as reflected in art, architecture and music. (5 units)

**353. POPULAR CULTURE**

Significance and context of popular modes of art and entertainment focusing on selected periods, such as the rock generation. Course may be repeated as topics change; however, no more than five units of Humanities 353 may be used to satisfy general education requirements. (5 units)

**360. CULTURES OF THE EAST**

An interdisciplinary introduction to the cultural heritage of the nonwestern world as reflected in art, architecture, theatre, literature and music. (5 units)

**400. HUMANITIES SEMINAR**

A seminar considering the various ways (particularly through philosophy, literature and the arts) in which people deal with "human experience." *Prerequisite: senior standing or consent of instructor.* (5 units)

**460. CULTURE STUDIES**

Aspects of culture, language and civilization with emphasis upon major factors shaping national tradition. May be repeated for credit as topics change. (5 units)

**495. EXPOSITORY WRITING FOR THE HUMANITIES**

Writing related to the humanities including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the Expository Writing courses (Education 495, Management 495, English 495, Humanities 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded A,B,C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

**496. SELECTED TOPICS IN HUMANITIES**

Seminar in special topics chosen from arts or humanities. May be repeated with change of topic. (5 units)

## 302 / Humanities

### 499. METHODS AND MATERIALS IN THE TEACHING OF HUMANITIES

Integration of educational philosophy and pedagogical concepts with the specific teaching materials of disciplines in the humanities. This course may not be counted toward fulfilling requirements of courses in the majors below. *Prerequisites: Education 330, senior or graduate standing and admission to the single subject credential program.*

- A. Art (5 units)
- B. Foreign Languages (5 units)
- C. English (5 units)
- D. Music (5 units)
- E. Theatre Arts (5 units)
- F. Humanities (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 695. DIRECTED GRADUATE STUDIES

Graduate-level independent study under the direct supervision of a faculty member approved by the committee on graduate education. (Credit to be arranged: 1 to 5 units)

### 699. THESIS

Preparation of M.A. thesis under the direction of a faculty member approved by the committee on graduate education. Maximum nine credits applicable toward the M.A., with a special major. *Prerequisite: advancement to candidacy.* (Credit to be arranged: 1 to 5 units)

## HUMAN SERVICES

*Department of Sociology  
Administration Building, Room 183  
887-7224*

Human services is an interdisciplinary, career-oriented degree program drawing from sociology, psychology, ethnic studies and health science. It is particularly suited to the para-professional person whose work role is that of a generalist who must serve in a variety of work settings and deal with a variety of human needs. Consequently, courses have been selected and designed to meet minimum general occupational needs of human services personnel.

### Requirements for the Bachelor's Degree

*Requirements for the major:* Health Science 120 and 371; Psychology 100, 201, 387, 390; Social Sciences 155; Sociology 100, 340, 354, 434 and Sociology 484 or Psychology 315; 15 additional units of upper-division course work (refer to Human Services Practice below); plus 10 units of internship/field study in either Psychology 575, Sociology 575 or Health Science 492A and 492B.

*Honors in the Major:* Students majoring in human services are eligible to receive honors in human services at graduation if the following conditions are met: (1) at least one-half of the course work required by the major is completed at this University, (2) at least a 3.5 GPA in the major, both at this University and overall, (3) an overall undergraduate GPA of 3.0 or better, and (4) completion of a senior project approved in advance by the program coordinator. Students interested in receiving this recognition must initiate the process by making a formal application with the Sociology Department secretary.

*Introductory courses:*

**HEALTH SCIENCE 120. HEALTH AND SOCIETY: AN ECOLOGICAL APPROACH**

**PSYCHOLOGY 100. INTRODUCTION TO PSYCHOLOGY**

**SOCIAL SCIENCES 155. MINORITY GROUPS IN AMERICA**

**SOCIOLOGY 100. THE STUDY OF SOCIETY**

*Human Development and Behavior*

**PSYCHOLOGY 201. DEVELOPMENTAL PSYCHOLOGY**

**PSYCHOLOGY 390. ABNORMAL PSYCHOLOGY**

**SOCIOLOGY 340. SOCIOLOGY OF THE FAMILY**

**SOCIOLOGY 354. DEVIANT BEHAVIOR**

## **304 / Human Services**

### *Delivery of Human Services*

**HEALTH SCIENCE 371. COMMUNITY HEALTH SERVICES**

**PSYCHOLOGY 387. COMMUNITY PSYCHOLOGY**

**SOCIOLOGY 434. COMMUNITY ORGANIZATION**

### *Human Services Practice*

(15 units selected from at least two of the areas below)

- 1. HEALTH SCIENCE 358. FOODS, NUTRITION AND HEALTH**
- 2. HEALTH SCIENCE 336. DRUG AND ALCOHOL USE AND ABUSE (2½ units)  
PSYCHOLOGY 333. DRUGS AND BEHAVIOR**
- 3. ANTHROPOLOGY 330. CROSS-CULTURAL CHILD-REARING PRACTICES  
HEALTH SCIENCE 435. CHILD AND YOUTH DEVELOPMENT: HEALTH ASPECTS  
PSYCHOLOGY 391. PSYCHOPATHOLOGY OF CHILDHOOD**
- 4. HEALTH SCIENCE 423. HEALTH ASPECTS OF AGING  
PSYCHOLOGY 329. PSYCHOLOGY OF ADULTHOOD AND AGING  
SOCIOLOGY 330. SOCIAL GERONTOLOGY**
- 5. SOCIOLOGY 352. JUVENILE OFFENDER  
SOCIOLOGY 358. SOCIOLOGY OF PUNISHMENT AND CORRECTIONS**
- 6. HEALTH SCIENCE 470. HEALTH BEHAVIOR AND COMMUNITY HEALTH  
EDUCATION**

### *Methods*

**PSYCHOLOGY 315. COMMUNICATION PROCESSES**

or

**SOCIOLOGY 484. SOCIAL CASEWORK**

### *Internship/Field Study*

Ten units of internship/field study selected to correspond with course work chosen above, selected in consultation with an advisor. The internship must be in either Psychology 575, Sociology 575, or Health Science 492A and 492B.

# INDUSTRIAL TECHNOLOGY

*School of Natural Sciences  
Biological Sciences Building, Room 130  
887-7341*

The University is planning to add the degree program, B.S. in Industrial Technology, to its curriculum in 1987–88. Latest information on these plans can be obtained from the School of Natural Sciences. The courses listed below are expected to become a part of the proposed degree program.

## **301. INTRODUCTION TO INDUSTRIAL ARTS AND TECHNOLOGY**

Survey of the professional activities and environments of the industrial technologist. Course covers the role of the technologist in American industry, the history of technology and the growth and future of the profession. (2½ units)

## **310. MANUFACTURING AND INDUSTRIAL PROCESSES**

Basic concepts of manufacturing engineering including management, design, production, controls, costs, personnel and sales. Four hours lecture and three hours laboratory/field work. (5 units)

## **330. TECHNICAL GRAPHICS**

Emphasis on the mechanisms and practices of drafting/graphics systems used in modern manufacturing industry. Lecture and six hours laboratory/field work. *Prerequisite: introductory technical drafting.* (5 units)

## **350. STRENGTH AND MATERIALS**

Fundamentals of mechanics including forces, equilibrium, centroids, moments of inertia, shear and moment diagrams, stress and strain deflections. Physical, chemical and mechanical properties of common industrial materials along with selection, testing and evaluation procedures. Three hours lecture and six hours laboratory/field work. *Prerequisites: completion of lower-division physics, mathematics and chemistry requirements and Industrial Technology 310.* (5 units)

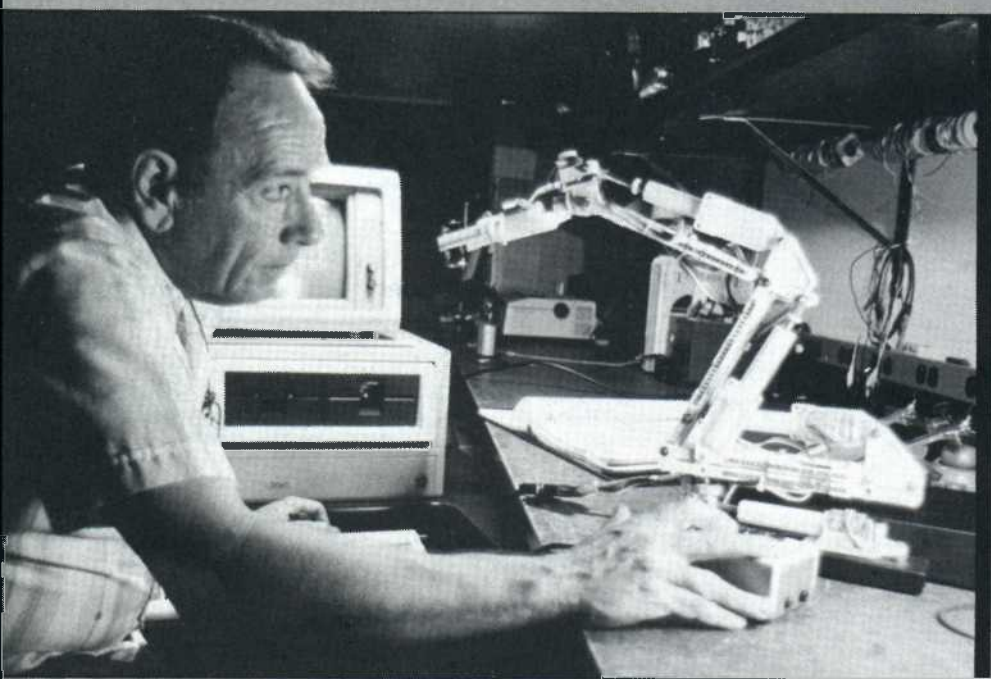
## **370. QUALITY CONTROL AND ASSURANCE**

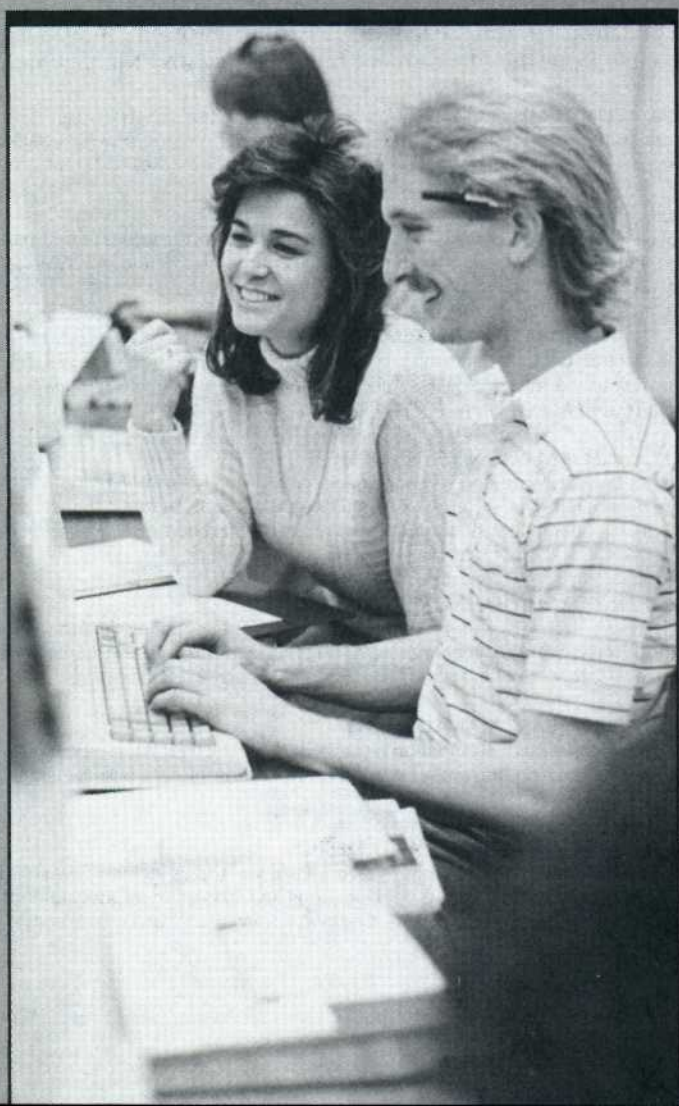
An overview of the concepts of systems for integrating quality development, quality maintenance and quality improvements within manufacturing systems. Quality assurance principles and practices will include management concepts, inspection practices and costs of quality control and testing functions. *Prerequisite: Industrial Technology 310* (5 units)

## **575. INTERNSHIP IN INDUSTRIAL TECHNOLOGY**

Designed to provide the student with occupational experiences within the industrial community. Transition to professional practice wherein one applies learned theory to actual practice. May be repeated once for credit. Open only to industrial technology majors. Graded credit/no credit. *Prerequisites: completion of general technology core, Industrial Technology 301, 310, 330, 350 and 370 and consent of instructor and department* (5 units)







## INFORMATION MANAGEMENT

*Department of Marketing and Management Science  
Administration Building, Room 135  
887-7711*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Bachelor of Science, Master of Business Administration and Certificate can be earned with a concentration in information management. The details of these programs are listed under Administration (Page 134) and under Certificate programs (Page 103). Further information about these programs is available from the Department of Marketing and Management Science.

### **220. FUNDAMENTALS OF BUSINESS DATA PROCESSING**

Introduction to business data processing for students with no previous background. Fundamental principles of business data processing utilizing illustrative cases of business applications. (5 units)

### **309. INFORMATION MANAGEMENT**

Application of computer systems in organizations. Covers the topics of information systems planning, information forecasting, information technology and information processing. *Prerequisite: Information Management 220.* (5 units)

### **471. INFORMATION SYSTEMS PLANNING**

Analysis of an organization's information systems needs. Information systems needs are developed according to the mission, goals, objectives and business plans. *Prerequisites: Information Management 309 and Management 302 or Psychology 302.* (5 units)

### **472. INFORMATION TECHNOLOGY**

Study of the hardware and software necessary to have a complete information system. Topics include distributed data systems, personal computers, data terminal devices, communication media, networking, operating systems and software needs. *Prerequisites: Information Management 309, 471.* (5 units)

### **473. INFORMATION FORECASTING**

Analysis of computerized forecasting techniques for accounting, finance, statistics and quantitative methods. *Prerequisites: Accounting 312, Finance 313, Information Management 309, Management Science 210, 304.* (5 units)

### **474. DATA BASE MANAGEMENT**

Treatment of the use of information retrieval and storage techniques. Includes sequential and random files organization, on-line systems and the application of data base programs. *Prerequisites: Information Management 309, 471, 472.* (5 units)

### **476. SYSTEMS ANALYSIS AND DESIGN**

Analysis and design specifications of an organization; topics include flow charting, programming, interviewing, data flows, systems specifications and management involvement. *Prerequisites: Information Management 309, 471, 472; Computer Science 201 or 140.* (5 units)

**477. DECISION SUPPORT SYSTEMS**

Analysis of executive information systems; topics include the strategy, framework, design, implementation and evaluation of decision-support systems. *Prerequisites: Information Management 309, 476.* (5 units)

**478. INFORMATION PROBLEM SOLVING**

Structured approaches to complex problem-solving techniques; topics include cybernetics, frame analysis, synetics, brainstorming and similar techniques. *Prerequisite: Information Management 309.* (5 units)

**479. STUDIES IN INFORMATION MANAGEMENT**

Research and discussion of current topics, problems, research, employment opportunities, and developments in the computer and information management fields. *Prerequisite: Information Management 309.* (5 units)

**481. INFORMATION PROCESSING**

Analysis of text editing, word processing, graphics and report generation in the office information systems. Emphasis is placed on adapting software packages to various computer systems. *Prerequisite: Information Management 309.* (5 units)

**575. INTERNSHIP IN INFORMATION MANAGEMENT**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (5 units)

**590. SEMINAR IN INFORMATION MANAGEMENT**

An intensive study of some phase of Information Management to be developed by the instructor. May be repeated for credit as topics change. (5 units)

**595. INDEPENDENT STUDY**

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**609. INFORMATION MANAGEMENT SYSTEMS**

Advanced applications of computer and information systems in organizations. Topics include information management planning, information technologies and information based management. *Prerequisite: Information Management 309.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisite: consent of instructor, department chair and school dean.* (5 units)

**647. INFORMATION BASED MANAGEMENT**

Advanced theory and application of data base management in organizations. Topics include managers' need for information, elements of a data base, types of data bases, difference in data bases and information systems. *Prerequisite: Information Management 609.* (5 units)

## **310 / Information Management**

### **650. INFORMATION FORECASTING SYSTEMS**

Advanced theory and application of forecasting and decision systems in support of management. Topics include interactive modeling and spread-sheet analysis. *Prerequisite: Information Management 609.* (5 units)

### **690. ADVANCED TOPICS IN INFORMATION MANAGEMENT**

Intensive study of an advanced topic in information management. May be repeated for credit as topics change. (5 units)

## INTERDISCIPLINARY STUDIES

The University offers a limited number of courses outside of its department and school structure.

Also offered as interdisciplinary studies are the certificate programs in international relations and bilingual/cross-cultural studies. See Pages 113 and 104.

### 77. ADJUNCT FOR SPECIFIC SUBJECTS

Taught as an adjunct to specifically designated classes with emphasis on texts used in those classes. May be repeated. Units awarded for Interdisciplinary Studies 77 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (2 units)

### 99. READING ENHANCEMENT

Improvement in speed, vocabulary and comprehension of reading. May be repeated. Units awarded for Interdisciplinary Studies 99 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit.

- A. Social Sciences (2 units)
- B. Natural Sciences (2 units)
- C. Humanities (2 units)

### 101. WORDS AND IDEAS

A course combining English 101 and Philosophy 105. Students must complete I.S. 101A and I.S. 101B before credit can be granted for either. I.S. 101A must be taken before I.S. 101B. This course may be taken as an alternative to English 101 and Philosophy 105. *Prerequisite: satisfactory score on the English placement test, or completion of the test and at least a grade of C in English 100.* A. (5 units)  
B. (5 units)

### 386. THE ARTS AND SCIENCES AS HUMAN ACTIVITIES

A version of the 10-unit I.S. 388 course that extends over two consecutive quarters. A final grade will be assigned only upon successful completion of both terms, as demonstrated through a comprehensive examination taken at the end of the second term. See Page 67 for comprehensive examination limitations. A. (5 units) B. (5 units)

### 387. THE ARTS AND SCIENCES AS HUMAN ACTIVITIES

A version of the 15-unit I.S. 388 course that extends over two consecutive quarters. A final grade will be assigned only upon successful completion of both terms, as demonstrated through a comprehensive examination taken at the end of the second term. See Page 67 for comprehensive examination limitations. A. (7½ units) B. (7½ units)

### 388. THE ARTS AND SCIENCES AS HUMAN ACTIVITIES

Independent study of selected readings developed to meet the upper-division general education requirement and drawn from the natural sciences, social sciences and humanities. No class meetings; study guides available at the College bookstore outline entire quarter's work. Six-hour examination at end of term. See Page 67 for comprehensive examination limitations. (10 or 15 units)

### 460. ASPECTS OF CHICANO CULTURE

Cultural, political and social values of the Chicano as reflected in Chicano literature, art, music, teatro and other forms and their relationship to concurrent developments in Mexico. (5 units)

## 312 / Interdisciplinary Studies

### 596. EXPOSITORY WRITING: HONORS

Advanced writing workshop for students who have already met the College upper-division writing requirement. Intensive class discussion of substantial independent writing projects. Course offers five units of upper-division general education credit which may apply to Category A but *not* to Category E. Graded A, B, C/No Credit. *Prerequisite: completion of upper-division writing requirement.* (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 695. DIRECTED GRADUATE STUDIES

Graduate-level independent study for students in interdisciplinary M.A. programs; to be conducted under direct supervision of a faculty member from the student's committee and, if a special major, with approval of the committee on graduate education. (Credit to be arranged: 1 to 6 units)

### 698. EXTENDED ENROLLMENT

Independent study leading to completion of requirements (other than course work) for the M.A. degree. Students enrolled in this course have full use of University facilities. *Prerequisites: advancement to candidacy, approval of program graduate coordinator or if special major, consent of the associate dean of graduate programs.* (0 units)

### 699. GRADUATE THESIS

Preparation of the thesis for the M.A. under the direction of a faculty member from the student's committee and if a special major, with approval of the associate dean of graduate programs. Maximum of 9 credits applicable toward the M.A. *Prerequisite: advancement to candidacy.* (Credit to be arranged: 1 to 9 units)

## LIBERAL STUDIES

*Liberal Studies Office*  
*Pfau Library Building, Room 276*  
*887-7483*

The B.A. in Liberal Studies is a multidisciplinary degree program designed for students whose needs or interests require a more broadly based liberal arts curriculum than is possible through existing disciplines. Although the program is open to all students, it should prove of particular value to those who plan to enter the elementary teaching field.

The liberal studies degree program has been approved by the Commission for Teacher Preparation and Licensing; students completing this major are granted a waiver of the examination requirement for the multiple subject teaching credential.

### Teaching Credential Program

For full information regarding requirements for teaching credentials and admission to the credential program, see Page 204. Students should contact the School of Education Credentials Office soon after their initial enrollment at the University to indicate their interest in pursuing a teaching career and to obtain more detailed information about the process of applying for admission to the credential program.

Please note that prior to admission to student teaching, liberal studies students must have a 2.77 cumulative grade point average and be assessed and recommended by the liberal studies faculty for subject matter competency and pass the California Basic Educational Skills Test (CBEST).

In order to complete the professional education sequence and qualify to student teach during their senior year, liberal studies majors should plan their course of study carefully and include the following prerequisite courses in their undergraduate program:

- Psychology 100. Introduction to Psychology
- Psychology 320. Psychology of Middle Childhood
- Education 200. Introduction to Careers in Education
- Education 330. Psychological Foundations of Education
- Education 345A. Reading in the Elementary School

During the last two terms of the senior year (or as a postbaccalaureate student if necessary) multiple subjects credential candidates must also complete:

- Education 411A. Elementary Student Teaching
- Education 340. Elementary Curriculum and Methods I
- Education 411B. Elementary Student Teaching



## 314 / Liberal Studies

Education 341. Elementary Curriculum and Methods II  
or

Education 344. Curriculum and Instruction for Bilingual/Cross-cultural Education (for Bilingual/Cross-cultural emphasis only)

### Requirements for the Bachelor's Degree

Basic program \* (minimum of 127 units in major)

English (including grammar, literature, composition and speech)	35 units
Mathematics and the physical and life sciences	27.5 units
Social sciences	32.5 units
Humanities and the fine arts (including foreign languages)	32 units
Field of concentration, from approved areas noted below	18 units
At least 15 units must be numbered 300 or above	

A student electing to complete the B.A. in Liberal Studies is also required to meet the general education requirements. A careful selection of courses within the major, including electives, will enable the student to complete the general education requirements, as well as the major, without additional course work.

By an appropriate selection of course work in the basic program, the field of concentration and the free electives, the following objectives may be achieved:

1. Completion of a second major in certain fields.
2. Completion of the professional education requirements leading to a multiple subject teaching credential.

#### *Basic Program*

The basic program for the B.A. in Liberal Studies is divided into four broad categories. Within each of these four, the course work is further subdivided into courses in required areas and elective courses.

#### English

Two courses in composition:

English 101

English 495

One course in literary analysis:

English 301 or 302 or 303

One course in language:

English 311

Electives (15 units):

Ten units must be upper-division. Selections are to be made from the course offerings of the Department of English; Communication 120, Theatre Arts 211 and Philosophy 105 are also acceptable.

#### Humanities

One course in the arts:

Art 200 or Theatre Arts 250 or Music 180

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\* A 2.0 grade-point average in each area of the basic program is required.

Two courses in letters:

English 110, 111 and 170; Foreign Language 450; French 101-102-103; German 101-102-103; Spanish 101-102-103, and 450; Philosophy 190

Humanities activity (2 units):

To be chosen from Art 201, 203, 204, 304, 354, 357, 383, 384, 395, 483, 484; Communication 243; Theatre Arts 131, 211, 236, 245, 251, 252, 253, 312, 320A,B,C,D, or E, 336, 345A, 345B, 382, 383, 385, 481, 482, 483; Music 205, 206, 220, 221, 222, 380 through 395, 531

Electives (15 units):

Ten units must be upper-division. Selections are to be made from the course offerings of the School of Humanities (excluding English).

### Social Sciences

One course from the world cultures group:

Social Sciences 140, 142, 144, 165

One course from the American society group:

Social Sciences 146, 155, 160; Political Science 203

One course from the behavioral and social sciences group:

Anthropology 100, 102; Economics 104; Geography 100; Political Science 200; Psychology 100; Sociology 100

Electives (17.5 units):

Twelve and a half units must be upper-division. Selections are to be made from the course offerings of the School of Social and Behavioral Sciences.

### Natural Sciences and Mathematics

One course in basic mathematics:

Mathematics 100 or 110 or 120 or 200

One course in applied mathematics:

Mathematics 301 or 350 or Computer Science 120

One course in life sciences:

Biology 100 or 202

Health Science 120

One course in physical sciences:

Chemistry 100; Earth Science 101; Geography 103; Natural Sciences 100; Physics 100

Electives (7.5 units): \*

One course must be upper-division. Selections are to be made from the course offerings of the School of Natural Sciences (excluding nursing and physical education).

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\* As one of these electives, those seeking a multiple-subject teaching credential may meet the state-mandated requirement in health education by taking one of the following: Health Science 336, 337, 426, 435 or 440.

*Field of Concentration*

The field of concentration requires 18 quarter units, with at least 15 units at the upper-division level. Courses to meet this requirement, to be selected in consultation with an advisor, must be from a single one of the disciplines below:

Art	Administration	Biology
Arts in the	Anthropology	Chemistry
Classroom	Child Development	Computer Science
Communication	Economics	Health Science
English	Geography	Mathematics
Foreign Literature	History	Physical Education
in Translation	Political Science	Physics
French	Psychology	
German	Sociology	
Humanities		
Music		
Philosophy		
Spanish		
Spanish for Public		
Services		
Theatre Arts		

*Bilingual/Cross-cultural Studies Emphasis*

A multiple subjects credential candidate may pursue a bilingual/cross-cultural focus within the liberal arts major. The bilingual/cross-cultural focus requires a different basic program than the standard liberal studies program. The program is outlined below:

English

Two courses in composition:

English 101

English 495

One course in literary analysis:

English 301 or 302 or 303

One course in language:

English 311

Electives (15 units):

Ten units must be upper-division. Selections are to be made from the course offerings of the Department of English; Communication 120, Theatre Arts 211 and Philosophy 105 are also acceptable.

Humanities

Art 200 or Music 180 or Theatre Arts 250,

Spanish 101, 102, 103,

Spanish 301, or 415

One upper-division elective to be selected from Art 328 or 329, Foreign Language 450, Humanities 460, Music 351, Spanish 302, Spanish 440, Spanish 450

Two units of humanities activity to be chosen from Art 201, 203, 204, 304, 354, 357, 383, 384, 395, 483, 484; Communication 243; Theatre Arts 131, 211, 236, 245, 251, 252, 253, 312, 320A,B,C,D, or E, 336, 345A, 345B, 382, 383, 385, 481, 482, 483; Music 205, 206, 220, 221, 222, 380 through 395, 531

**Social Sciences**

One course from the world cultures group: Social Sciences 140, 142, 144, 165  
One course from the American society group: Social Sciences 146, 155, 160; Political Science 203

One course from the behavioral and social sciences group: Anthropology 100, 102; Economics 104; Geography 100; Political Science 200; Psychology 100; Sociology 100

Two courses to be chosen from: Anthropology 354, 460; History 390, 391, 565, 566; Political Science 351; Psychology 347; Sociology 342, 410, 442

One of the following: History 370A or History 370B

One upper-division elective from the School of Social and Behavioral Sciences that fulfills the upper-division general education requirement.

**Physical and Life Sciences and Mathematics**

One course in basic mathematics, to be chosen from:

Mathematics 100, 110, 120, 200

One course in applied mathematics, to be chosen from:

Mathematics 301, 350, Computer Science 120

One course in the life sciences:

Biology 100 or 202 Health Science 120

One course in the physical sciences:

Chemistry 100; Earth Science 101; Geography 103; Natural Sciences 100; Physics 100

One lower or upper-division elective from the course offerings of the School of Natural Sciences (excluding nursing and physical education).

One upper-division elective from the course offerings of the School of Natural Sciences that fulfills the upper-division general education requirement.

The field of concentration requires 18 quarter units, with at least 15 units at the upper-division level. Courses to meet this requirement to be selected from the following:

**ANTHROPOLOGY 330. CROSS-CULTURAL CHILD-REARING PRACTICES**

†**ANTHROPOLOGY 354. CULTURES OF MEXICO AND CENTRAL**

†**ANTHROPOLOGY 460. LANGUAGE AND CULTURE**

†**ART 328. MEXICAN ART**

†**ART 329. CHICANO ART**

**EDUCATION 536. TEACHING THE CULTURALLY DIFFERENT**

†**FOREIGN LANGUAGES 450. LITERATURE IN TRANSLATION: MEXICAN**

†**HISTORY 390. HISTORY OF MEXICO**

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† These courses may be used as electives if they have not already been used for the basic program.

## 318 / Liberal Studies

†HISTORY 391. CHICANO HISTORY

†HISTORY 565. ETHNIC MINORITIES IN AMERICAN HISTORY

†HISTORY 566. ETHNIC MINORITIES IN THE AMERICAN SOUTHWEST: PAST AND PRESENT

†HUMANITIES 460. CULTURE STUDIES: MEXICAN

INTERDISCIPLINARY STUDIES 460. ASPECTS OF CHICANO CULTURE

†MUSIC 351. MEXICAN AND CHICANO MUSIC

†POLITICAL SCIENCE 351. THE CHICANO AND POLITICS

†PSYCHOLOGY 347. PSYCHOLOGICAL DEVELOPMENT OF THE CHICANO

†SOCIOLOGY 342. THE CHICANO FAMILY

†SOCIOLOGY 410. RACIAL AND CULTURAL MINORITIES

SPANISH 202. GRAMMAR AND COMPOSITION

SPANISH 204. INTRODUCTION TO LITERARY TEXTS

†SPANISH 302. THEORY AND PRACTICE IN COMPOSITION

†SPANISH 440. MEXICAN LITERATURE

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† These courses may be used as electives if they have not already been used for the basic program.



## MANAGEMENT

*Department of Management  
Administration Building, Room 153  
887-7678*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Master of Business Administration and certificate can be earned with a concentration in management. The details of these programs are listed under Administration (Page 134) and under Certificate Programs (Page 103). Further information about these programs is available from the Department of Management.

### **302. MANAGEMENT AND ORGANIZATIONAL BEHAVIOR**

Introduction to management as it affects operations and the behavior of people in relation to the functional fields of administration. Selected behavioral concepts analyzed with respect to applications in management. (Also offered as Psychology 302. Students may not receive credit for both.) (5 units)

### **330. LEGAL ENVIRONMENT OF BUSINESS**

Study of the legal system; nature and source of law as applied to business activity; statutes and significant cases involving business policies; effect of public policies on private enterprise system. (5 units)

### **350. ADMINISTRATIVE COMMUNICATIONS**

Introduction to communication theory. Concepts, analysis and methods of improvement for interpersonal communication, communication within organizations and communication between organizations and their external environments. (5 units)

### **355. MANAGEMENT OF ADMINISTRATIVE CONFLICT**

Emphasis on development of conflict, theories of administrative conflict and methods of resolving such conflict. *Prerequisites: Management 302 or Psychology 302.* (5 units)

### **402. STUDIES IN ORGANIZATIONAL BEHAVIOR**

Review and presentation of selected areas of behavioral science research and its application to management practices. Selected subjects may include: motivation, communication, change and leadership. *Prerequisite: Management 302 or Psychology 302.* (5 units)

### **403. INTERPERSONAL RELATIONS**

Interpersonal relationships between managers and their supervisors, peers and subordinates, with emphasis on policy development and implementation. (Also offered as Communication 403. Students may not receive credit for both.) (5 units)

### **405. MANAGEMENT OF INTERNATIONAL OPERATIONS**

Comparative analysis of management practices in various cultures with emphasis on sociocultural, political and economic influences. Need for adaptation of business practices to local environment is stressed. *Prerequisite: Management 302 or Psychology 302.* (5 units)

#### 442. SMALL BUSINESS MANAGEMENT

Managerial considerations for the small business entrepreneur. Acquisitions, location, legal considerations, finances, taxation, labor relations and other topics. (5 units)

#### 451. ORGANIZATION AND MANAGEMENT THEORY

Development and analysis of organization and management theory. Comparative analysis seeking patterns and systematic explanation of differences among organizations. Dynamics of interaction between organizations and environment. *Prerequisites: Management 302 or Psychology 302.* (5 units)

#### 455. HUMAN RESOURCES MANAGEMENT

Policies relating to human resources; manpower planning, personnel selection and development, performance appraisal, compensation, relationships with unionized employees, collective bargaining. *Prerequisite: Management 302 or Psychology 302.* (5 units)

#### 456. PSYCHOLOGY OF HUMAN RESOURCES

Review of research in application of psychology to selection, evaluation and training of human resources. Topics include fair employment legislation, job analysis methodologies, merit evaluation, interviewing techniques and psychometric methods. *Prerequisite: Management 455 or Psychology 355.* (5 units)

#### 457. INDUSTRIAL AND LABOR RELATIONS

Social forces leading to collective employee action in relation to labor legislation and collective bargaining. Utilizes current development, case law and bargaining simulation. *Prerequisite: Management 455.* (5 units)

#### 458. EMPLOYMENT POLICIES AND PRACTICES

Evaluation of employer-employee relationships. Utilizes case analysis for the study of policy in the areas of collective bargaining, selection and placement, affirmative action, job design and manpower utilization. *Prerequisites: Management 455.* (5 units)

#### 485. WOMEN IN ADMINISTRATION

Problems and issues of current concern regarding women in management. Particular emphasis on role of women in managerial decision-making process. (5 units)

#### 490. ADMINISTRATIVE STRATEGY AND POLICY

An integrative, problem-solving approach to problems which confront the administrator. Topics are explored by utilizing skills and techniques developed in previous course work. *Prerequisites: administration core.* (5 units)

#### 495. EXPOSITORY WRITING FOR ADMINISTRATION

Writing related to business and public administration including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. May not be counted for fulfilling concentration requirements for any degree program offered by the School of Business and Public Administration. No more than one of the Expository Writing courses (Education 495, Management 495, English 495, Humanities 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded A,B,C/NC. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

#### 530. BUSINESS AND SOCIETY

Evaluation of American business systems; political, legal and social factors influencing business; role of business in alleviating society's problems; problems and issues of current concern regarding women and minorities in management. (5 units)

#### 532. HUMAN FACTORS IN SYSTEM DEVELOPMENT

Principles of human factors design applied to the user-system interface in business, industrial, computer, control and information management systems. *Prerequisites: one of the following: Management Science 210, Mathematics 350, Psychology 210.* (5 units)



## 322 / Management

### 551. METHODS OF ORGANIZATIONAL CHANGE

Review of important change methodologies including modeling, operant conditioning, organizational behavior modification, attitude change and organization development (OD). *Prerequisite: Management 302 or Psychology 302.* (5 units)

### 575. INTERNSHIP IN MANAGEMENT

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite: consent of instructor and school.* (5 units)

### 590. SEMINAR IN MANAGEMENT

An intensive study of some phase of management to be developed by the instructor. May be repeated for credit as topics change. (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 601. ORGANIZATION THEORY AND BEHAVIOR

A critical analysis of theories for viewing organizations and an examination of the common models for understanding human behavior, including executive behavior, within the constraints of a complex social system. *Prerequisites: Management 302 or Psychology 302.* (5 units)

### 603. RESEARCH METHODS IN ADMINISTRATION

Principles of research design, development of research instruments, data accumulation and analysis of significant data. Critique of sample research studies from the literature and a research study conducted by the student. *Prerequisite: Management Science 210.* (5 units)

### 627. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

### 641. PERSONNEL ADMINISTRATION

Analysis of specific areas and problems in administration of personnel systems and policies. Includes employment planning; personnel recruitment, selection and development; performance appraisal; training; compensation. *Prerequisite: Management Science 210 or Mathematics 350 or Management Science 504 (or Mathematics 504).* (5 units)

### 642. COMMUNICATION AND INTERPERSONAL PROCESSES

Various theories of interpersonal processes and communication as they relate to organizational efficiency and effectiveness, as well as a consideration of the organization as a communication system. *Prerequisite: Management 601.* (5 units)

### 643. ORGANIZATIONAL DESIGN

Examination of organizational structure and design. Emphasis on current research and applications. *Prerequisite: Management 601.* (5 units)

### 644. INDUSTRIAL RELATIONS

Analysis of industrial relations systems in major industries, collective bargaining institutions, processes, legal environment and problems. (5 units)

**685. CORPORATE POLICY ANALYSIS**

Corporate policy and strategy formulation, integrating the various business functions, e.g., marketing, accounting and finance. *Prerequisite: completion of, or concurrent enrollment in, all other core course(s) for the Master of Business Administration.* (5 units)

**690. ADVANCED TOPICS IN MANAGEMENT**

Intensive study of an advanced topic in management. May be repeated for credit as topics change. (5 units)

## MANAGEMENT SCIENCE

*Department of Marketing and Management Science  
Administration Building, Room 135  
887-7711*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration.

A Bachelor of Arts, Bachelor of Science, and Master of Business Administration can be earned with a concentration in management science. The details of these programs are listed under Administration (Page 134). Further information about these programs is available from the Department of Marketing and Management Science.

### **210. APPLIED BUSINESS STATISTICS**

An introduction to statistical reasoning and application of primary statistical techniques used in solving managerial problems. Covers both descriptive and inferential statistics. Credit may not be received for more than one of the following courses: Management Science 210, Psychology 210 or Social Sciences 215. (5 units)

### **304. QUANTITATIVE ANALYSIS FOR MANAGEMENT**

Introduction to mathematical tools used in administrative problem analysis. Emphasis is on the application of deterministic and stochastic models to managerial decision making. *Prerequisite: Mathematics 110 or 120.* (5 units)

### **360. STATISTICAL ANALYSIS FOR MANAGEMENT**

Application of probabilistic models and statistical decision theory to decision-making within the enterprise; techniques for optimization of administrative decisions. *Prerequisites: Mathematics 190, Management Science 304, and one of the following: Management Science 210 or Mathematics 350.* (5 units)

### **400. QUANTITATIVE DECISION METHODS**

Quantitative methods of analysis used in solution of administrative problems, including linear programming and calculus applications. *Prerequisites: Mathematics 190, Management Science 304, and one of the following: Management Science 210 or Mathematics 350.* (5 units)

### **460. PRODUCTION PLANNING AND CONTROL**

Analysis of production resources; measurement and evaluation of man-machine systems; forecasting, planning and scheduling; quality and quantity control. *Prerequisites: Management 302 or Psychology 302 and Management Science 304.* (5 units)

### **465. OPERATIONS RESEARCH**

Principles of management science in executive decision-making. Algebraic and geometric representations of optimization models in management. Problems in production, marketing, finance, purchasing and personnel administration. *Prerequisite: Management Science 400.* (5 units)

**504. QUANTITATIVE TOOLS FOR MANAGEMENT**

Intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have had all of the following: Mathematics 110 or 120, Management Science 210 or Mathematics 150 or 350, and Management Science 304. May not be counted toward fulfilling requirements for any degree program offered by the School of Business and Public Administration or the School of Natural Sciences. (Also offered as Mathematics 504. Students may not receive credit for both.) (5 units)

**575. INTERNSHIP IN MANAGEMENT SCIENCE**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (5 units)

**590. SEMINAR IN MANAGEMENT SCIENCE**

An intensive study of some phase of Management Science to be developed by the instructor. May be repeated for credit as topics change. (5 units)

**595. INDEPENDENT STUDY**

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**607. OPERATIONS MANAGEMENT**

Integration and application of analytical techniques used in manufacturing and service industries. Concepts of decision models are examined for planning, control, forecasting, scheduling, and analysis within an enterprise. *Prerequisites: Management 302 or Psychology 302 and Management Science 504 (or Mathematics 504).* (5 units)

**610. DECISION THEORY FOR MANAGEMENT**

Behavioral and quantitative approaches to administrative decision making. *Prerequisites: Management 601 and Management Science 607.* (5 units)

**611. OPERATIONS ANALYSIS**

Scientific approach to the resolution of operational problems. Structure and function of models and decision strategy commonly used in national policy analysis including measures of effectiveness, uncertainty, and the misuse of modeling. (Also offered as Mathematics 611. Students may not receive credit for both.) *Prerequisite: one of the following: Social Science 215, Psychology 210, Management Science 210, Mathematics 350 or equivalent.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**630. PRODUCTION SYSTEMS DEVELOPMENT**

Production function (both products and services) in management and its importance as a subsystem of administrative operations. *Prerequisite: Management Science 607.* (5 units)

**690. ADVANCED TOPICS IN MANAGEMENT SCIENCE**

Intensive study of an advanced topic in management science. May be repeated for credit as topics change. (5 units)

## MARKETING

*Department of Marketing and Management Science  
Administration Building, Room 135  
887-7711*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Bachelor of Science, Master of Business Administration and certificate can be earned with a concentration in marketing. The details of these programs are listed under Administration (Page 134) and under Certificate Programs (Page 103). Further information about these programs is available from the Department of Marketing and Management Science.

### **305. MARKETING PRINCIPLES**

Marketing functions including products, channels, pricing and promotion. (5 units)

### **409. IMPORT-EXPORT MANAGEMENT**

Current practices and opportunities in importing and exporting goods with emphasis on preparing products for foreign shipment, shipping, necessary documentation and use of free trade zones. *Prerequisite: Marketing 305.* (5 units)

### **410. CONSUMER BEHAVIOR**

Nature and determinants of consumer attitudes, consumption and purchasing behavior. *Prerequisite: Marketing 305.* (5 units)

### **411. RETAILING**

History, development, organization and management of retail institutions. Emphasis is on retail store operations, such as location, layout, planning, control of budgets, personnel, pricing and customer services. *Prerequisite: Marketing 305.* (5 units)

### **412. ADVERTISING**

Stimulation of market demand through advertising media, including printed messages, radio and television, developing the advertising appeal, selecting the media, placing copy and measuring results. Consideration of social consequences of advertising. *Prerequisites: Marketing 305 and 410.* (5 units)

### **414. SALES AND SALES MANAGEMENT**

Introduction to sales principles and development of sales techniques. Activities and organization of the sales department, management of the sales force. *Prerequisite: Marketing 305.* (5 units)

### **418. INDUSTRIAL MARKETING**

Analysis of the purchasing and marketing of industrial goods and services in businesses, government and other institutions. Buying motives and practices for industrial goods, sales forecasting, product strategy, pricing, advertising and trade channels. *Prerequisite: Marketing 305.* (5 units)

### **440. MARKETING RESEARCH**

Analysis of markets, survey methodology, sample design, quantitative techniques in market research projects. *Prerequisites: Management Science 304 and Marketing 305; and one of the following: Management Science 210 or Mathematics 350.* (5 units)

**441. MARKETING PLANNING AND CONTROL**

Strategies and techniques in marketing management. Student is required to apply prior material from the marketing curriculum to contemporary marketing problems. Emphasis is on decision-making in such matters as product, pricing, distribution and promotional strategies. *Prerequisites:* Information Management 220, Management Science 210 or Mathematics 350, Marketing 305, 410, 440, Economics 200 and 202, Mathematics 110 or 120 or 190. (5 units)

**443. ADVERTISING CAMPAIGN**

Elements and processes by which an advertising campaign is conceived and designed. Students develop a full marketing and advertising campaign for a national product or service. Components include appeal, market research, media evaluation, insertion scheduling and creative aspects. *Prerequisite:* Marketing 305. (5 units)

**470. INTERNATIONAL MARKETING MANAGEMENT**

Marketing strategies for developing global markets including the cultural, political, and economic infrastructure of foreign markets and their impact on traditional marketing decisions. (5 units)

**515. CHANNELS OF DISTRIBUTION**

Physical distribution system and its elements—packaging, transportation, warehousing and inventory management. Emphasis on control of risk by planning, selecting and supervising elements of distribution. *Prerequisites:* Information Management 220, Management Science 210 or Mathematics 350, Management Science 304, Marketing 305, Economics 200 and 202. (5 units)

**516. PRODUCT MANAGEMENT**

Innovation, development, extension, management and strategy formulation of products. *Prerequisites:* Information Management 220, Management Science 210 or Mathematics 350, Marketing 305, Economics 200 and 202, Mathematics 110 or 120 or 190. (5 units)

**575. INTERNSHIP IN MARKETING**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisite:* consent of instructor and school. (5 units)

**590. SEMINAR IN MARKETING**

An intensive study of some phase of marketing to be developed by the instructor. May be repeated for credit as topics change. (5 units)

**595. INDEPENDENT STUDY**

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites:* a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken. (Credit to be arranged: 2 or 5 units.)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites:* consent of instructor, department chair and school dean. (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**605. MARKETING MANAGEMENT**

Problem-solving and decision-making in marketing and the interacting effects of such factors as selling, advertising, pricing, consumer behavior and channels of distribution. *Prerequisites:* Marketing 305 and Economics 305. (5 units)

## 328 / Marketing

### 621. MARKETING STRATEGY

Process by which a company develops a strategic marketing plan. Emphasis is on the role of marketing in the preparation of corporate strategic plans, views of the consumer/customer, potential effects of the environment, consideration of marketing information and control systems. *Prerequisite: Marketing 605.* (5 units)

### 622. CONSUMER AND ORGANIZATIONAL BUYING BEHAVIOR

Influences on the purchasing behavior of individual consumers and organizational buyers. Use of theories, concepts and research findings in management and public policy decisions. *Prerequisite: Marketing 605.* (5 units)

### 623. ADVANCED MARKETING RESEARCH

Marketing research functions and activities and their relationships to product/service management, media choice decision, research instruments and data collection, strategy and tactical decisions. *Prerequisite: Management Science 504 or equivalent and Marketing 605.* (5 units)

### 625. ADVERTISING MANAGEMENT

Role of advertising in its relationship to other marketing functions, including a detailed study of advertising techniques. Emphasis is on client-agency relationship, government relations and the role of marketing management in determining and executing advertising and promotional policy. *Prerequisite: Marketing 605.* (5 units)

### 627. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

### 690. ADVANCED TOPICS IN MARKETING

Intensive study of an advanced topic in marketing. May be repeated for credit as topics change. (5 units)

## MATHEMATICS

*Department of Mathematics  
Biological Sciences Building, Room 111  
887-7351*

The role of mathematics in society is rapidly growing. New mathematical methods are making an ever wider range of problems amenable to quantitative treatment, thus stimulating new applications, especially in the social, behavioral, management and biological sciences. Computers, able to process formerly unmanageable masses of data and to perform prodigious computational chores, have freed mathematicians to attack problems arising in such diverse areas as industrial management, medical research, environmental studies, ecology, psychology and space exploration.

The mathematics program at California State University, San Bernardino prepares students for careers utilizing applied mathematics, such as oceanography, biostatistics, and computer design and analysis. The program also prepares students interested in teaching, and for others it provides the well-rounded background necessary for graduate work in mathematics and the social and physical sciences.

### Requirements for the Bachelor's Degrees

*Requirements for the bachelor of arts degree:* 65 units in mathematics including Mathematics 200-201-202-203, 331, 335, 340, 345, 550A, 570A and 15 units in upper-division electives, not to include Mathematics 301, 302, 350, 499, 504, or 611, chosen in consultation with the advisor. Computer Science 201 or 240 or equivalent is also required.

*Requirements for the bachelor of science degree:* Computer Science 201-202 or 240; Mathematics 200-201-202-203, 331, 335, 340, 345, 550A, 570A, plus 15 units of upper-division electives in mathematics, chosen in consultation with the advisor and not to include Mathematics 301, 302, 350, 499, 504, or 611. At least 5 units of the electives are to be chosen from: Mathematics 445, 539, 550B, 560B, 560C or 570B. Also required are 25 units in additional courses beyond the general education requirements from at most two disciplines in the natural sciences, chosen in consultation with the advisor.

The required core of the major programs (Mathematics 200-201-202-203, 331, 335, 340, 345, 550A and 570A) is designed to provide a solid background for a student planning a career as either an applied mathematician or secondary mathematics teacher or planning to study mathematics on the graduate level.

*Teaching Credential Program:* Both the Bachelor of Arts and Bachelor of Science in Mathematics are approved as single subject teaching credential programs. In order to be recommended for the teaching credential students must complete the requirements of the major as well as certain prerequisites to the teacher education program. For information about the professional education



## 330 / Mathematics

component, admission to the teacher education program or specific requirements for the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Requirements for a minor in mathematics:* Computer Science 201 or 240 and Mathematics 200-201-202-203, 331 and 345.

*Departmental Honors:* The department faculty will determine whether a student is to be awarded departmental honors upon graduation.

The criteria will be:

1. A grade-point average of at least 3.5 in all mathematics courses taken at this University and counted toward fulfilling requirements of the mathematics major.
2. Two (ten quarter hours) upper-division mathematics courses beyond requirements of the major, passed with grades of A— or better. These courses may not include Mathematics 301, 302, 350, 499, or 504. At least one of these additional courses must be an independent study course culminating in a presentation to the department.

Mathematics 595 Independent Study will be offered on demand; see course description below.

### Certificate Program

The Department of Mathematics offers a certificate program in Teaching Basic Mathematics. Details concerning this program are found on Page 120.

#### 70. FUNDAMENTAL ARITHMETIC

Fundamental topics in arithmetic, including a preview of algebra. Units awarded for Mathematics 70 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (5 units)

#### 80. FUNDAMENTAL ALGEBRA

Arithmetic operations, linear and quadratic equations, applications and introduction to graphing. Units awarded for Mathematics 80 are not applicable to a baccalaureate degree. Graded A, B, C/No Credit. (5 units)

#### 81. ALGEBRA REVIEW

Accelerated review of the basic mathematical skills required for the entry-level mathematics (ELM) examination: arithmetic skills, polynomial expressions, linear equations and inequalities, rational expressions, integer exponents, square roots, quadratic equations, geometric measurement and graphing. Units awarded for Mathematics 81 are not applicable to the baccalaureate degree. Graded A, B, C/No Credit. (2 1/2 units)

#### 85. BASIC MATHEMATICS

A full-year course designed specifically for students who score at or within the lowest quartile on the entry-level mathematics (ELM) examination. Review of basic mathematics from counting through Algebra I. Natural numbers, integers, rational numbers, decimals, exponents, roots, solving equations, word problems, graphing linear equations, solving systems of linear equations, direct and inverse variation, Pythagorean theorem, angle measurement and construction, area, perimeter, similarity, congruence. Units awarded for Mathematics 85 are not applicable to a baccalaureate degree. Students can place out of the sequence and enroll in general education mathematics by achieving a passing score on the entry-level mathematics examination. Graded: credit/no credit.

- A. First Quarter. (5 units)
- B. Second Quarter. (5 units)
- C. Third Quarter. (5 units)

### 90. INTERMEDIATE ALGEBRA

Linear and quadratic equations and inequalities, algebraic fractions and rational equations, exponents, radicals and radical equations, applications to word problems. Units awarded for Mathematics 90 are not applicable to a baccalaureate degree. Graded: A, B, C/No Credit. *Prerequisite: passage of the entry-level mathematics test or a satisfactory score on the appropriate placement examination.* (5 units)

### 100. THE IDEAS OF MATHEMATICS

Sets, propositional logic, permutations, combinations, binomial theorem, finite probability measures, expectation, variance, use of computers in mathematics. Recommended for those who will later take a statistics course. *Prerequisite: satisfactory score on the entry-level mathematics examination.* (5 units)

### 110. INTRODUCTION TO COLLEGE MATHEMATICS

Functional notation, graphs and inverses of linear, polynomial, and rational functions, rational exponents, arithmetic and geometric progressions, logarithmic and exponential functions, systems of linear equations. *Prerequisites: passing score on the entry-level mathematics test and either satisfactory score on a placement test or passage of Mathematics 90.* (5 units)

### 120. PRE-CALCULUS MATHEMATICS

Trigonometric functions, trigonometric identities, right angle trigonometry, complex numbers, conic sections, binomial theorem, induction. *Prerequisites: satisfactory score on the entry-level mathematics examination, and either satisfactory score on a placement test or Mathematics 110.* (5 units)

### 160. GEOMETRY IN TWO AND THREE DIMENSIONS

Geometric constructions and transformations, the axiomatic foundations of Euclidean and non-Euclidean geometries. (5 units)

### 190. BUSINESS CALCULUS

Introduction to differentiation and integration of functions of one variable, including algebraic, logarithmic and exponential functions, with business-related applications. *Prerequisite: Mathematics 110 with a grade of B or better, or Mathematics 120.* (5 units)

### 200. BASIC CONCEPTS OF CALCULUS

An introduction to differentiation and integration of functions in one variable, with applications. *Prerequisite: satisfactory score on the entry-level mathematics examination.* (5 units)

### 201. CALCULUS II

Differentiation of transcendental functions, methods of integration, indeterminate forms, improper integrals. *Prerequisites: Mathematics 200 with a grade of 'C' or better and a trigonometry background such as provided in Mathematics 120 or consent of instructor.* (5 units)

### 202. CALCULUS III

Infinite sequences and series, vectors, functions of several variables, partial differentiation, multiple integrals. *Prerequisite: Mathematics 201 with a grade of 'C' or better or consent of the department chair.* (5 units)

### 203. CALCULUS IV

Polar coordinates, parametric equations, calculus of vector functions, line integrals and applications. *Prerequisite: Mathematics 202 with a grade of 'C' or better or consent of the department chair.* (5 units)

### 301. BASIC MATHEMATICS FOR EDUCATORS

Course designed to produce mastery in the presentation of fundamentals for those who are preparing to instruct others. May not be counted toward fulfilling requirements in the mathematics major. *Prerequisites: satisfactory score on the entry-level mathematics examination; and completion of the general education requirement in mathematics or equivalent preparation.* (5 units)

## 332 / Mathematics

### 302. PROBLEM SOLVING IN MATHEMATICS

Use of induction, analogy, successive approximation and other heuristic techniques, illustrated by means of elementary and recreational problems. May not be counted toward fulfilling requirements in the mathematics major. (5 units)

### 310. MATHEMATICAL METHODS OF PHYSICS I

Vector analysis, matrices and introductory complex analysis. Applications of ordinary differential equations and Laplace transforms. Emphasis on techniques applicable to the problems of physics. (Also offered as Physics 310. Students may not receive credit for both.) *Prerequisites: Mathematics 202 and Physics 222.* Prerequisite or corequisite: Mathematics 203. Mathematics 331 is recommended but not required. (5 units)

### 331. LINEAR ALGEBRA

Vector spaces over a field, linear dependence, dimension; matrices and systems of linear equations; special matrices and canonical forms; characteristic values and vectors; diagonalization of quadratic and Hermitian forms; applications. A knowledge of a computing language is strongly recommended. *Prerequisite: Mathematics 202 or 203 or consent of instructor.* (5 units)

### 335. COMBINATORICS

Permutations and combinations, generating functions, principle of inclusion and exclusion, Polya's counting theory and other topics. *Prerequisite: Mathematics 202 or consent of instructor.* (5 units)

### 340. INTRODUCTION TO PROBABILITY

Probability spaces, independence, conditional probability, densities, mass, and distribution functions, moments, joint and marginal distributions, moment generating functions, Chebychev's inequality, law of large numbers and other topics. *Prerequisite: Mathematics 335 or consent of instructor.* (5 units)

### 341. INTRODUCTION TO MATHEMATICAL MODELS

Linear and probabilistic models, computer simulation, difference and differential equation models. *Prerequisites: Mathematics 331, 340 and Computer Science 201.* (5 units)

### 345. NUMBER THEORY AND PROOF

Theory of divisibility, primes, linear congruences. Theorems of Fermat, Euler, Wilson. Primitive roots, indices. Number theoretic functions. Introduction to writing mathematical proofs and to some historical topics. *Prerequisite: Mathematics 202.* (5 units)

### 350. STATISTICS: HYPOTHESIS TESTING AND ESTIMATION

After a brief introduction to descriptive statistics, course will emphasize hypothesis testing and estimation, using packaged computer programs. *Prerequisite: one term of college mathematics.* (5 units)

### 360. ORDINARY DIFFERENTIAL EQUATIONS

Topics from among: first order equations, linear equations, systems of equations, iterative methods, series solutions, Laplace transformations, applications. *Prerequisites: Mathematics 331 and knowledge of a major computing language such as BASIC, FORTRAN or PASCAL.* (5 units)

### 411. INTRODUCTION TO MATHEMATICAL LOGIC

Propositional and quantificational logic, completeness and consistency results, formal systems, Peano arithmetic, recursive functions, Gödel's incompleteness theorem. *Prerequisite: Mathematics 345.* (5 units)

### 420. NUMERICAL METHODS

Introduction to numerical methods for finding solutions of non-linear equations, systems of linear equations and ordinary differential equations. Discussion of errors and numerical instabilities; numerical differentiation; numerical integration. *Prerequisites: Mathematics 203 and Computer Science 202.* (5 units)

#### 425. MATHEMATICAL METHODS OF PHYSICS II

A continuation of Mathematics/Physics 310 with emphasis on advanced topics including Fourier transforms, functions of a complex variable and partial differential equations. Additional topics chosen from: tensor analysis, linear algebra and ordinary differential equations. (Also offered as Physics 425. Students may not receive credit for both.) *Prerequisite: Mathematics or Physics 310.* Mathematics 331 is strongly recommended. (5 units)

#### 445. INTRODUCTION TO MATHEMATICAL STATISTICS

Likelihood ratio, estimators, distributions of estimators, theory of hypothesis testing, linear statistical models. *Prerequisite: Mathematics 340.* (5 units)

#### 499. TEACHING MATHEMATICS

Individualized instruction in the methods and materials for the teaching of mathematics. This course requires background at least equivalent to Mathematics 120, 160, and 302. Students in doubt on this point should consult with the Mathematics department before enrolling. This course may not be counted toward fulfilling requirements of the mathematics major. *Prerequisites: Education 330, senior or graduate standing and admission to the single subject credential program or consent of School of Natural Sciences.* (5 units)

#### 504. QUANTITATIVE TOOLS FOR MANAGEMENT

An intensive introduction to applied topics in statistics, algebraic functions and linear programming for graduate students. No credit will be awarded to students who have had all of the following: Mathematics 110 or 120, Management Science 210 or Mathematics 350, and Management Science 304. May not be counted toward fulfilling requirements for any degree program offered by the School of Administration or the School of Natural Sciences. (Also offered as Management Science 504. Students may not receive credit for both.) (5 units)

#### 539. ADVANCED GEOMETRY

Topics in affine and projective geometry with applications to Euclidean 2 and 3 space and to modern algebra. *Prerequisites: Mathematics 331 and 345.* (5 units)

#### 550. ANALYSIS

Continuous and differentiable functions, infinite series, Riemann and improper integrals. Uniform convergence, computation with series, functions represented by integrals, Fourier series, Lebesgue measure and integration. *Prerequisites: Mathematics 345 and either 203 or 331.*

A. (5 units)

B. (5 units)

#### 560. TOPICS IN ADVANCED ANALYSIS

B. Functions of a Complex Variable. *Prerequisites: Mathematics 203 and 550A.* (5 units)

C. Topology. *Prerequisite: Mathematics 345.* (5 units)

#### 570. TOPICS IN ALGEBRA

Abstract algebra includes the study of groups, rings and fields, while number theory provides examples and motivation for the algebraic concepts through studying the natural numbers.

A. Abstract Algebra. *Prerequisites: Mathematics 331 and 345.* (5 units)

B. Advanced Abstract Algebra. *Prerequisite: Mathematics 570A.* (5 units)

#### 595. INDEPENDENT STUDY

An independent study course for senior mathematics majors. *Prerequisites: Mathematics 331 and 550A, a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

#### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## 334 / Mathematics

*600-level courses are open to postbaccalaureate and graduate students only.*

### **611. OPERATIONS ANALYSIS**

Scientific approach to the resolution of operational problems. Structure and function of models and decision strategy commonly used in national policy analysis including measures of effectiveness, uncertainty and the misuse of modeling. (Also offered as Management Science 611. Students may not receive credit for both.) Mathematics 611 may not be counted toward fulfilling the requirements of the mathematics major. *Prerequisite: one of the following: Social Science 215, Psychology 210, Management Science 210, Mathematics 350 or equivalent.* (5 units)

## MILITARY SCIENCE (ARMY ROTC)

*Military Science Office  
Student Services Building, Room 124  
887-7273*

The military science program is designed to provide an on-campus program for qualified students in all academic majors who desire to serve as an Army officer on active duty or in a local Army Reserve or Guard unit. While students may participate in either undergraduate or graduate studies, the program requires at least two years to complete.

The basic course of study is open to all students without obligation. The final two years, or advanced course, is open only to Army ROTC students in the commissioning program.

Students who have completed at least basic training in any of the armed services may be eligible to enter the advanced course directly. Other students must complete three to six of the courses in the basic course of study or complete a six-week summer camp prior to entering the advanced course.

ROTC students are required to participate in leadership laboratories off-campus during one weekend each month.

Full tuition scholarships are available on a competitive basis. All students receive \$100 per month during the final two years of the program.

The basic course of study includes the following: History 325A, B, and C; Sociology 369A and B; Military Science 253; Management 302; and Physical Education 146 (Orienteering).

The advanced course of study consists of the following: Military Science 351, 352, 353, 451, 452 and 453. In addition, a six-week advanced camp is required during the summer between the final two years of study.

### Certificate Program

A certificate program in military science is offered by the University. The Certificate is not required for Army ROTC students. Details concerning this program are found on Page 115.

#### **253. PSYCHOLOGY OF LEADERSHIP AND MANAGEMENT**

Psychological theories, models and concepts as applied to the practice of leadership and management. (2½ units)

#### **351. SMALL UNIT OPERATIONS I**

Current tactical doctrine as applied to small unit operations. *Prerequisite: consent of instructor.* (2 units)

## **336 / Military Science (ROTC)**

### **352. SMALL UNIT OPERATIONS II**

Continuation of current tactical doctrine as applied to small unit operations, with special attention to the leader's role. *Prerequisite: Military Science 351.* (2 units)

### **353. ADVANCED MILITARY LEADERSHIP AND MANAGEMENT**

Leadership skills required of an ROTC cadet at advanced camp and as a junior officer in the armed forces. *Prerequisite: Military Science 352.* (2 units)

### **451. MILITARY LAW**

Military justice system, including a history of military law, philosophy and structure of the military justice system, courts-martial and alternatives to courts-martial. *Prerequisite: consent of instructor.* (2½ units)

### **452. CONTEMPORARY MILITARY POLICY**

Contemporary military policy and related subjects of topical military interest, including personal ethics, relevant to the training of junior-level officers. *Prerequisite: consent of instructor.* (2½ units.)

### **453. SENIOR LEADERSHIP SEMINAR**

Leadership and management problems encountered in a company-sized unit, with emphasis on the role of the junior officer. *Prerequisite: Military Science 452.* (2½ units)

## MUSIC

*Department of Music*  
*Creative Arts Building, Room 175*  
 887-7454

The contemporary musician has a potential access to more kinds of music than ever before in history. The music curriculum—with courses in electronic music, performance, world music, historical studies, music education and integrated theory—reflects that diversity in that it offers programs for the student who wishes to enrich his or her education, become a professional musician, pursue an advanced degree in music or enter the teaching profession.

### Requirements for the Bachelor's Degree

*Requirements for the major:* proficiency in theory equal to Music 100 or its equivalent. 80 units distributed as follows: Music 111-112-313-314-315-542; Music 304-305-306, three units of applied music at the upper-division level, Option I or Option II; proficiency in piano, demonstrated by satisfactory completion of a placement examination or by passing Music 222 with a minimum grade of B; successful completion of six repertory listening examinations; six quarters of concert attendance (at least eight Music Department concerts, recitals and related programs must be attended per quarter) or equivalent. Participation in the major performance organization most appropriate to the student's applied emphasis is required each quarter in residence: voice emphasis majors shall participate in Concert Choir; wind instrument emphasis majors shall participate in Wind Ensemble; string emphasis majors shall participate in Chamber Orchestra; percussion emphasis majors shall participate in either Wind Ensemble or Chamber Orchestra; majors whose applied emphasis is piano, organ, harpsichord, guitar, synthesizer or composition shall participate in either Concert Choir, Wind Ensemble or Chamber Orchestra.

Option I. Music 210, 400, 402 and 20 units at the upper-division level selected in consultation with the faculty advisor. A half solo recital is required in the junior year, and a full solo recital is required in the senior year. Option I, open to all students, through audition and recommendation of the faculty, is especially suited as preparation for further professional study.

Option II. One unit each of Music 205 and 206 (vocal emphasis majors take Music 207 in lieu of Music 206); two units each of Music 201, 202, 203, 204. Music 210, 301, 303, 350, 406, 408, 410, 411, 412. A full solo recital is required in the senior year. Open to all students, Option II is especially suited as preparation for the Ryan Act single subject credential in music.

*Teaching Credential Program:* Students wishing to be recommended for the single subject teaching credential in music must complete Option II of the major in music as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the



teacher education program or specific requirements for the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Honors in Performance:* Honors in Performance is a continuous six-quarter program designed specifically for upper-division students who show particular distinction as performers and who demonstrate exceptional promise for future growth.

Students admitted to the program will work with their applied instructors to develop an approved individual program of study which will be reviewed each quarter by the faculty. Honors students will present a public junior and senior recital.

Upon completion of the program, Honors in Performance will be noted on the student's transcript and successful candidates will be publically recognized in a special honors concert.

The following criteria and procedures have been established:

1. Candidates will be accepted into the program upon recommendation of the studio instructor and the approval of the music faculty.
2. Entering students must show evidence of previous training, experience and quality of work.
3. A long-range program of instruction will be arranged between the student and the instructor. This program, taking into consideration the student's present capability and future potential, will be designed to include literature necessary for continued growth, as well as including works considered necessary to musical literacy. Student progress in the program will be evaluated each quarter by the department.
4. Honors candidates are expected to perform in public with reasonable regularity.
5. Candidates who have successfully completed five quarters in the program will then register for "Honors in Performance."
6. Honors students will register for "Honors Senior Recital" in lieu of "Senior Recital."

The department has a number of performance groups open to all students. The nature of these groups makes it essential that students register for a minimum of two or more successive quarters in any one ensemble.

A maximum of 15 units in applied music or courses listed under music education may be included in the total requirements for the major. Further information may be found in the department's Handbook For Music Majors.

*Requirements for a minor:* Music 100, 180, 220; at least one course in world music; two other five-unit courses, one of which must be at the upper-division level; and the successful completion of three repertory listening examinations.

## THEORY

The integrated music theory courses are the core of a program which seeks to develop in the student the ability to cope with any aural experience. The courses deal with the materials of music and how they combine to create musical structures, analysis of representative works and continued development of the musical ear and keyboard facility. Designed primarily for the music major and the liberal arts student with a serious interest in music.

### 100. BASIC MUSICIANSHIP

Rudiments of music: pitch, rhythm, scales, melody, sightsinging, dictation and introductory keyboard activity. Credits may not be counted toward fulfilling requirements of the music major. Lecture and two hours of laboratory. (5 units)

### 111. THEORY I

Basic materials of music and how they combine to create musical structures. Analysis of representative works is combined with creative work in counterpoint and harmony, together with sightsinging, ear training and keyboard harmony. *Prerequisite: Music 100 or equivalent or placement examination.* (5 units)

### 112. THEORY II

Continuation of Music 111. *Prerequisite: Music 111 or equivalent or consent of instructor.* (5 units)

### 313. THEORY III

Melody, harmony and texture as they relate to musical structure; extension of tonality and its eventual evolution into 20th-century practice; analysis of representative compositions; continuation of sightsinging, ear and keyboard training. *Prerequisite: Music 112 or equivalent, or consent of instructor.* (5 units)

### 314. THEORY IV

Continuation of Music 313. *Prerequisite: Music 313 or equivalent or consent of instructor.* (5 units)

### 315. THEORY V

Continuation of Music 314. *Prerequisite: Music 314 or equivalent or consent of instructor.* (5 units)

### 542. STUDIES IN MUSICAL ORGANIZATION

Intensive study of aspects of musical organization: tonal, melodic and rhythmic. *Prerequisite: satisfactory completion of Music 315 or equivalent.* (5 units)

## HISTORY AND LITERATURE

These courses are concerned with musical ideas and styles, as well as social and aesthetic factors influencing sounds composers ultimately preferred and organized.

### 180. STUDIES IN MUSIC

Exploration of the elements of music and the nature of meaning and musical style, with emphasis on listening and analysis. (5 units)

### 304. HISTORY OF MUSIC I

Development of Western music from antiquity through the Renaissance, with emphasis on analysis, listening and individual study. *Prerequisite: Music 112 or consent of instructor.* (5 units)

### 305. HISTORY OF MUSIC II

Continuation of Music 304. Baroque to the late nineteenth century. *Prerequisite: Music 112 or consent of instructor.* (5 units)

### 306. HISTORY OF MUSIC III

Continuation of Music 305. Late Romantic to the present. *Prerequisite: Music 112 or consent of instructor.* (5 units)

### 400. STUDIES IN COMPOSERS

Intensive study into works of a particular composer. Content will vary. May be repeated for credit. (5 units)

### 402. STUDIES IN GENRES

Intensive study into a particular genre or form, such as symphony, concerto, oratorio, opera. Content will vary. May be repeated for credit as topics change. (5 units)

## **340 / Music**

### **406. ORCHESTRATION**

Instrumental literature and orchestration, including study of the instruments of the orchestra and writing for instrumental groups. *Prerequisite: Music 112 or consent of instructor.* (2½ units)

### **408. ARRANGING**

Continuation of Music 406. Techniques of arranging for instrumental and vocal groups. *Prerequisite: Music 406 or consent of instructor.* (2½ units)

### **426. STUDIES IN MUSIC HISTORY**

Intensive study in selected style periods of music. May be repeated for credit as topics change. (5 units)

### **510. SPECIAL TOPICS IN MUSIC**

Areas of special interest in the various fields of music selected for special presentation and development. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (5 units)

## **WORLD MUSIC**

The following courses are concerned with music as it has developed and as it exists in various cultures of the world. Courses include background necessary to enable the student to understand the role of music in particular societies. Visiting faculty and guest musicians when possible. No prerequisites. Non-music majors encouraged to enroll.

### **350. MUSIC OF OTHER CULTURES**

Offered either as a survey of world music or as an intensive study into the music of a particular country or region. May be repeated for credit. (5 units)

### **351. MEXICAN AND CHICANO MUSIC**

Musical cultural heritage of Mexico and its relation to the American community. (5 units)

### **352. AFRO-AMERICAN MUSIC**

Historical development of the Afro-American musical heritage. (5 units)

### **360. MUSIC IN THE UNITED STATES**

Primarily concerned with music not directly related to Western European classical traditions: folk heritage and blues tradition. (5 units)

## **COMPOSITION**

Working creatively with sound in a relatively unstructured situation. Experimentation is encouraged, based on individual abilities and preferences. Composition courses may be repeated for credit with consent of instructor.

### **416. ELECTRONIC MUSIC**

Techniques of electronic composition. Experimentation based on individual abilities and preferences. Non-majors encouraged to enroll. (5 units)

### **418. SYNTHESIZERS**

Use and understanding of voltage control devices, particularly the Buchla, Synthi and Moog synthesizers. *Prerequisite: Music 416 or consent of instructor.* (2½ units)

### **427. STUDIO RECORDING TECHNIQUES**

Introductory course dealing with microphone techniques, aspects of recording, multi-tracking, mix-down and editing. (5 units)

## INDEPENDENT STUDY

### 528. SPECIAL PROJECTS

Individual projects in orchestration, conducting and score reading, theory, history, composition, electronic music. *Prerequisite: consent of instructor.* (1 to 5 units)

## MUSIC EDUCATION

The following courses are designed for the prospective elementary and secondary school teacher.

### 201. CLASS STRINGS

Beginning study on violin, viola, cello and bass. May be repeated for credit. (1 unit)

### 202. CLASS WOODWINDS

Beginning study on selected woodwinds. May be repeated for credit. (1 unit)

### 203. CLASS BRASS

Beginning study on selected brass instruments. May be repeated for credit. (1 unit)

### 204. CLASS PERCUSSION

Beginning study of percussion instruments. May be repeated for credit. (1 unit)

### 205. CLASS GUITAR

Beginning guitar instruction designed for the prospective elementary school teacher. May be repeated for credit. (1 unit)

### 206. CLASS VOICE

Fundamentals of singing, voice production and diction. (1 unit)

### 207. DICTION FOR SINGERS

Proper diction and pronunciation used in English, Latin, Italian, French and German vocal literature. Examples drawn from standard vocal literature. (1 unit)

### 210. CONDUCTING

Introduction to basic conducting techniques. (2 units)

### 220. CLASS PIANO I

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

### 221. CLASS PIANO II

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

### 222. CLASS PIANO III

Basic keyboard techniques, including music reading, keyboard harmony and improvisation. Credit may not be counted toward fulfilling requirements of the music major. (1 unit)

### 301. CHORAL CONDUCTING

Techniques and skills employed in the performance of choral literature. *Prerequisite: Music 210.* (2 units)

### 302. MUSIC THEATRE PRODUCTION

(2 units)

### 303. INSTRUMENTAL CONDUCTING

Techniques and skills employed in the performance of instrumental literature. *Prerequisite: Music 210.* (2 units)

## 342 / Music

### 410. MUSIC IN THE ELEMENTARY SCHOOLS

Materials and objectives in teaching music at the elementary school, including specialized instrumental and choral programs, singing and listening activities, and the use of simple instruments appropriate to child growth and development. Field work is included. *Prerequisite: Music 315 or consent of instructor.* (2 units)

### 411. TEACHING MUSIC IN SECONDARY SCHOOLS

Materials and objectives for teaching music in the secondary schools, including specialized instrumental and choral programs. Field work is included. *Prerequisite: Music 315 or consent of instructor.* (2 units)

### 412. MARCHING BAND TECHNIQUES

Marching fundamentals, charting for field shows, precision drills, parade techniques, materials, and administration for marching band. *Prerequisite: Music 315 or consent of instructor.* (2 units)

### 519. AUDIO PRODUCTION

Methods for creating appropriate musical/audio instructional materials using basic audio production equipment. Does not count toward the music major. (2½ units)

### 531. MUSIC IN THE CLASSROOM

A correlated study of basic music theory, piano and vocal technique and classroom skills. Designed for the elementary teacher. Not open to majors in music. (5 units)

## APPLIED MUSIC

Music majors are required to take a minimum of three units of applied music at the upper-division level. Applied music units on the same instrument may not be taken concurrently. A maximum of 15 units may be applied to the total requirements for the major. Permission to register in upper-division music courses can be granted only after a placement audition or by faculty recommendation. Applied music courses are available to undergraduate music majors only.

For students planning a career in music education, it is strongly recommended that, in addition to the three-unit requirement on a major instrument, three units of applied music study on a secondary instrument be included.

Students planning a career in performance are expected to study on their major instrument each quarter they are in residence. Students working in other areas may develop applied music programs consistent with their interest and goals.

The following music courses are available to undergraduate music majors only.

### 240. BEGINNING AND INTERMEDIATE VOICE

(1 unit)

### 241. BEGINNING AND INTERMEDIATE KEYBOARD INSTRUMENT

(1 unit)

### 242. BEGINNING AND INTERMEDIATE STRING INSTRUMENT

(1 unit)

### 243. BEGINNING AND INTERMEDIATE WIND INSTRUMENT

(1 unit)

### 244. BEGINNING AND INTERMEDIATE BRASS INSTRUMENT

(1 unit)

### 245. BEGINNING AND INTERMEDIATE PERCUSSION INSTRUMENT

(1 unit)

### 246. BEGINNING AND INTERMEDIATE COMPOSITION

*Prerequisite: Music 112 or equivalent.* (1 unit)

### 247. BEGINNING AND INTERMEDIATE SYNTHESIZER

Individual instruction on synthesizer and directed study in acoustics, psycho-acoustics and basic electronic principles. *Prerequisite: Music 221 or equivalent.* (1 unit)

**440. ADVANCED VOICE**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**441. ADVANCED KEYBOARD INSTRUMENT**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**442. ADVANCED STRING INSTRUMENT**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**443. ADVANCED WIND INSTRUMENT**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**444. ADVANCED BRASS INSTRUMENT**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**445. ADVANCED PERCUSSION INSTRUMENT**

*Prerequisite: placement audition or consent of instructor. (1 unit)*

**446. ADVANCED COMPOSITION**

*Prerequisite: consent of department. (1 unit)*

**447. ADVANCED SYNTHESIZER**

Individual instruction on synthesizer and directed study in acoustics, psycho-acoustics and advanced electronic principles. *Prerequisites: Music 416, 418 and successful completion of Music 222 (minimum grade of B) or equivalent. Placement audition or consent of instructor. (1 unit)*

**PERFORMANCE ORGANIZATIONS**

Participation in performance organizations may be repeated for credit, but may not be counted toward fulfilling course requirements in the music major.

**380. CHAMBER ORCHESTRA**

Performance of representative orchestral literature. (1 unit)

**381. WIND ENSEMBLE**

Performance of representative wind ensemble literature. (1 unit)

**382. CHAMBER MUSIC**

Performance of small ensemble music as determined by available instrumentation, for example, string quartet, brass quintet, flute choir. *Prerequisite: consent of instructor. (1 unit)*

**385. CONCERT CHOIR**

Performance of representative choral literature. (1 unit)

**386. CHAMBER SINGERS**

*Prerequisite: consent of instructor. (1 unit)*

**387. OPERA WORKSHOP**

*Prerequisite: consent of instructor. (1 unit)*

**391. JAZZ ENSEMBLE**

Performance of representative jazz ensemble literature. (1 unit)

**395. COLLEGIATE CHORUS**

Designed to serve the needs of students with no prior choral experience who wish to perform familiar music in a popular style. Will present at least one public performance per quarter. Open to all students without audition. This course will not satisfy the music major ensemble requirement. (1 unit)

**COMMUNITY SERVICE PROJECT**

**399. COMMUNITY SERVICE PROJECT**

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of instructor.* (Credit to be arranged: 1 or 2 units)

**DIRECTED STUDIES**

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## NATIONAL SECURITY STUDIES

*National Security Studies Office  
Biology Building, Room BI-29B  
887-7632  
and  
George Air Force Base  
C.B.P.O. Building Number 299, Room 232  
(619) 246-8783*

The M.A. in National Security Studies is a professionally oriented, interdisciplinary, graduate-level program housed within the School of Social and Behavioral Sciences. The program is designed to develop an understanding of the substance and principles of defense policy analysis, strategic planning and arms control in relation to the contemporary international environment. Flexibility within elective courses permits the student to emphasize research in national security issues of his or her special interests.

The program is relevant to established career personnel in defense analysis and related specialties, the military services, the civil service and the intelligence community. Additionally, the program is structured to provide motivated persons holding a B.A./B.S. degree from an accredited institution with the higher educational skills necessary for entry into the above mentioned career fields or to pursue doctoral studies.

The program is intended for evening students primarily and, therefore, classes are predominantly scheduled between 4 and 10 p.m. The entire program is also offered off-campus at George Air Force Base in Victorville. Once matriculated, students can take courses at either site.

### **Admission to the M.A. Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree from an accredited college or university;
2. Completion of the GRE Aptitude Test (verbal, quantitative and analytical aptitude). Satisfy the national security studies graduate admissions committee that sufficient preparation and a satisfactory course of study has been pursued in preparation for graduate study. (If GRE test results are not received in time for the entry term, admission will be in conditionally classified graduate standing.)
3. A minimum cumulative undergraduate grade-point average of at least 2.5 overall and at least 3.0 in the student's undergraduate major.
4. Competence in the following prerequisite courses or their equivalents:  
Mathematics 110. Introduction to College Mathematics  
Political Science 203. American Government



Political Science 484. National Security Policy (prerequisite for the *core* courses, not for admission to the program.)

Competence in these areas may be demonstrated by:

- a. Formal completion of the course or its equivalent.
  - b. Credit by examination. (Not applicable to Political Science 484).
5. Submission to the national security studies admissions committee of a brief statement (one to two double-spaced, typewritten pages) of the student's preparation for graduate study and professional aspirations following receipt of the master's degree.
  6. Submission of three letters of recommendation from individuals familiar with the student's academic or professional work and potential to complete the program successfully. Letters must come directly from the writer or be included in the placement file.

The instructor in each 600-level course will complete an evaluation of each student's performance and potential to complete the program successfully. These evaluations will be reviewed by the program director and maintained in the student's file for early consultation with the student about his or her future projects in the program.

Students who meet the requirements for admission to graduate study, but who do not meet the program requirements, may be admitted to graduate study in unclassified postbaccalaureate status or to the program in conditionally classified graduate standing. When the specified deficiencies are removed, student status is changed from conditionally classified to classified. (Unclassified postbaccalaureate students may enroll, when space is available, in selected graduate courses.) No more than 20 quarter units of national security studies course work taken as an unclassified or conditionally classified graduate student may be applied to the program as a classified graduate student.

### **Advancement to Candidacy**

To be advanced to candidacy, a student must have:

1. Achieved classified status;
2. Selected a graduate advisor to supervise the course of study;
3. Completed at least 15 quarter units of national security studies program graduate course work at this University, and achieved a minimum GPA of 3.0 in those courses;
4. Successfully completed the upper-division writing requirement;
5. Filed a graduate program approved by the student's advisor, the national security studies program director and the associate dean of graduate programs.

### **Requirements for Graduation**

1. A minimum of 45 quarter units of acceptable graduate-level work, with at least 35 quarter units completed in residence at California State University, San Bernardino. Thirty quarter units must be in 600-level courses, and 15 units outside political science. Students enrolling in approved 300 or 400-level elective courses must obtain prior approval from the program director and enroll simultaneously in a two-unit graduate-level independent study course directly related to the course selected.

2. A grade-point average of at least 3.0 in all national security studies program courses taken.
3. Completion of the course work required: Political Science 600, 601, 602 and approved electives.
4. Completion of the upper-division writing requirement.
5. Completion of acceptable comprehensive final written and oral examinations.

The Master of Arts in National Security Studies is a nonthesis course of study requiring both written and oral comprehensive examinations to be taken no earlier than in the last quarter of program course work. (Students must enroll in Political Science 999, Comprehensive Examination.) Students with less than a 3.0 GPA in the program will not be permitted to take the examinations. The comprehensive examination committee for each candidate will consist of the director of the national security studies program and two faculty teaching in the program, as mutually agreed between the candidate and faculty.

The written and oral examinations will cover four areas: the core courses, two fields in which the student has done research or completed course work, and a fourth field from the national security studies required reading list. The examinations will be graded pass or fail. An oral examination by the student's committee follows successful completion of the written examination. The oral examination is open for public attendance, but not participation. Should the candidate fail one or more written or oral examination areas, the entire oral or written examination may be repeated one time after remedial course work or study is completed. The scope of this remedial work will be determined by the student's examination committee at a post-examination conference. The second examination must be completed within one year of the first.

### **Requirements for the M.A. Degree**

*Requirements for the M.A. degree in National Security Studies include:*

#### *Prerequisite course:*

**POLITICAL SCIENCE 484. NATIONAL SECURITY POLICY**

(Political Science 484 or equivalent is a prerequisite to Political Science 600, 601 and 602. Political Science 484 is not credited toward the M.A. degree.)

#### *Core courses:*

**POLITICAL SCIENCE 600. ARMS CONTROL AND NATIONAL SECURITY POLICY**

**POLITICAL SCIENCE 601. STRATEGIC SYSTEMS AND STRATEGIC THOUGHT**

**POLITICAL SCIENCE 602. ALLIANCE STRATEGY AND REGIONAL SYSTEMS**

#### *Elective courses:*

30 units required from the following courses, 15 units of which must be 600-level; 15 units must be outside the Political Science Department.

**ENGLISH 666. SEMINAR IN WRITING: TECHNICAL/ANALYTICAL**

**GEOGRAPHY 609. SEMINAR IN THE GEOGRAPHY OF THE SOVIET UNION**

**GEOGRAPHY 621. SEMINAR IN THE GEOGRAPHY OF LATIN AMERICA**

**HISTORY 556. FOREIGN RELATIONS OF THE UNITED STATES**

## 348 / National Security Studies

**HISTORY 603. SEMINAR IN MODERN MILITARY HISTORY** (for a maximum of 10 units)

**INTERDISCIPLINARY STUDIES 695. DIRECTED GRADUATE STUDIES** (for a maximum of 10 units)

**MANAGEMENT SCIENCE OR MATHEMATICS 611. OPERATIONS ANALYSIS**

**PUBLIC ADMINISTRATION 671. DEFENSE BUDGETING AND MANAGEMENT**

**\* NATURAL SCIENCES 486. SCIENCE, TECHNOLOGY AND WARFARE**

**\* POLITICAL SCIENCE 304. COMMUNIST POLITICAL SYSTEMS**

**\* POLITICAL SCIENCE 325. AMERICAN FOREIGN POLICY**

**POLITICAL SCIENCE 590. SEMINAR IN INTERNATIONAL RELATIONS** (for example, naval strategy/maritime policy) (for a maximum of 10 units)

**POLITICAL SCIENCE 604. SEMINAR IN INTERNATIONAL LAW**

**POLITICAL SCIENCE 605. TOPICS IN STRATEGY** (for a maximum of 10 units)

**\* SOCIOLOGY 369A. MILITARY SOCIOLOGY: COMPARATIVE MILITARY SOCIOLOGY**

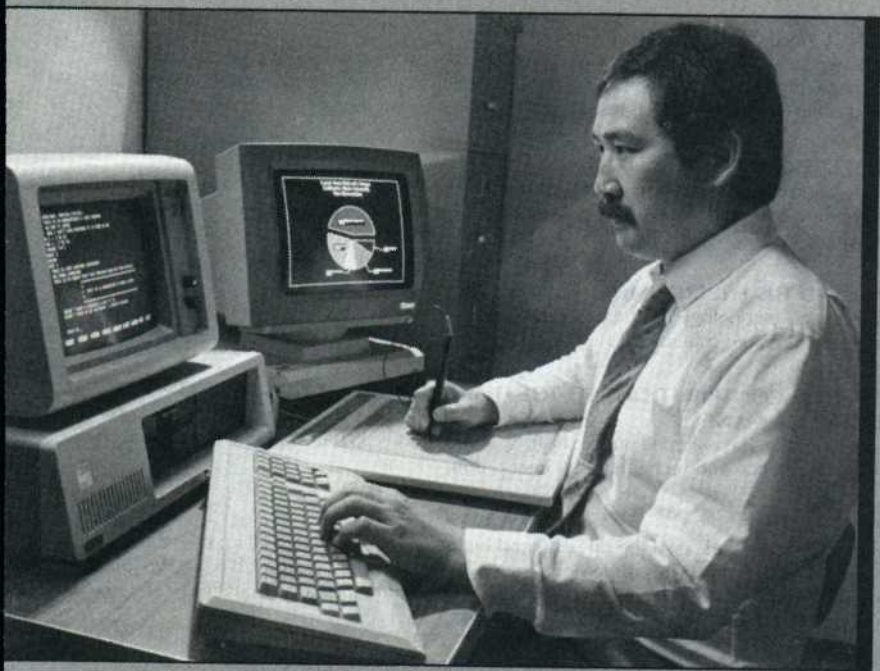
**\* SOCIOLOGY 369B. MILITARY SOCIOLOGY: AMERICAN MILITARY SOCIOLOGY**  
**SOCIOLOGY 606. SOCIOLOGY OF TERRORISM**

### Internship

*Internship in Political Science: Defense Analysis (Political Science 575) is available to interested students; however, units earned cannot be applied toward the M.A. degree.*

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\* A related 2-unit independent study (I.S. 695) course is required when these courses are taken as part of the program.



## NATURAL SCIENCES

*School of Natural Sciences*  
*Biological Sciences Building, Room 130*  
*887-7341*

The University offers courses of an interdisciplinary nature but no degree program under the natural sciences designation.

### **100. DESCRIPTIVE ASTRONOMY**

A brief history of the development of astronomy followed by modern descriptions of our planetary system, stars, galaxies and models of the universe. Discussions of space exploration and other methods of extending knowledge of the universe. No previous background in natural sciences is required. Lecture and two hours of laboratory. (5 units)

### **300. SCIENCE AND TECHNOLOGY**

Relationship between science and technology—past, present and future—with case studies of the energy crisis, the technology of pollution control and recycling, automation, computers, technology assessment and other contemporary issues. (5 units)

### **305. COMPUTERS AND SOCIETY**

History and operation of computers, how they impact on life, and their possible future. Students interested in learning a computer programming language should take an introductory computer science class. (5 units)

### **310. MAN AND HIS ENVIRONMENT**

Effects of science and technology on the environment. Special attention will be given to pollution sources, effects and possible solutions. (5 units)

### **312. SCIENTIFIC CONTRIBUTIONS TO THE DEVELOPMENT OF CIVILIZATION: "ASCENT OF MAN"**

Scientific discoveries that have shaped human history, interrelationship between science and the humanities, impact of science and technology on civilization. (5 units)

### **314. THE COSMOS**

Presentation of fundamental ideas in the physical and biological sciences relative to: origin and evolution of the universe and of galaxies, supernovae, stars, planets, pulsars, quasars, black holes, planetary exploration, and possibilities of extraterrestrial life and communication. (5 units)

### **320. ENERGY**

Present and future energy sources, including fossil fuels, hydroelectric power, nuclear energy and solar energy. Scientific principles and technological requirements for developing energy sources, economic factors and environmental problems associated with energy production and consumption. (5 units)

### **325. PERSPECTIVES ON GENDER**

This interdisciplinary course uses scientific, humanistic and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Humanities 325 and Social Sciences 325. Students may receive credit for only one of these courses.) (5 units)

**351. HEALTH AND HUMAN ECOLOGY**

A survey of the impact of physical, social and biological environments on health related issues such as poor housing, drug abuse, juvenile delinquency, radiation and pesticide exposure, food quality, noise, air and water resources and their relation to human settlements. (5 units)

**395. DIRECTED STUDY**

Reading and library research in one of the natural sciences disciplines conducted under the direction of a faculty member. *Prerequisites: consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

**486. SCIENCE, TECHNOLOGY AND WARFARE**

Historical examination of the effect of science and technology on warfare. (5 units)

**495. EXPOSITORY WRITING FOR THE NATURAL SCIENCES**

Writing on topics related to the natural sciences, including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the Expository Writing courses (Education 495, Management 495, English 495, Humanities 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded A, B, C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

**499. METHODS AND MATERIALS IN THE TEACHING OF NATURAL SCIENCES SUBJECTS**

Individualized instruction in the methods and materials for the teaching of such natural sciences subjects as chemistry, life science, physical education and physics. This course may not be counted toward fulfilling requirements of courses in the above majors. *Prerequisites: Education 330, senior or graduate standing and admission to the single subject credential program or consent of School of Natural Sciences.* (5 units)

**595. INDEPENDENT STUDY**

Research in special topics including library studies, field and/or laboratory work in one of the Natural Sciences disciplines under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* A maximum of six units in Natural Sciences 595 may be applied toward graduation. (Credit to be arranged: 1 to 6 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## NURSING

Accredited by the National League for Nursing

*Department of Nursing  
Health Center, Room 112  
887-7346*

The Department of Nursing offers a two-year, upper-division program leading to the Bachelor of Science degree with a major in nursing. This program is accredited by the National League for Nursing. It also meets requirements for certification as a public health nurse in California.

Courses are provided which include theoretical content and its applications in the care of patients across the life span with a wide range of health care needs. The intent of the program is to graduate generalists in nursing who are concerned with promoting optimum health in a variety of settings.

### Requirements for the Bachelor's Degree

#### *Purposes*

The purposes of the program are to provide the registered nurse with:

- a. Opportunity for professional and personal growth and development;
2. Preparation to function as a generalist on a professional level;
3. Insight into the changing health care needs of society and new techniques for participation in meeting them;
4. Expanded scope of knowledge for leadership in improvement and development of nursing practice; and
5. Qualification for admission to graduate study in nursing.

#### *Admission*

Each applicant to the nursing major will have an individual assessment of his/her previous academic work.

In addition to requirements for admission to the University as a transfer student, the following criteria must be met prior to formal admission to the nursing program: (before taking the first clinical course)

1. Lower-Division Requirements:
  - a. Completion of an associate degree in nursing or its equivalent. Diploma graduates may enter the University as "natural sciences undeclared (nursing) majors" while completing lower-division requirements.
  - b. Junior standing in the University.
  - c. Completion of one college-level course within the past seven years with grade of C or better in each of the following: (1) biochemistry, (2) microbiology, (3) anatomy and physiology and (4) growth and development through the life span.

2. Completion of a minimum of one year's work experience as a registered nurse is recommended.
3. Current California licensure as a registered nurse.
4. Completion of an application form for admission to the Nursing Department. (Available in the Nursing Office.)
5. Upon receipt of the "Official Graduation Credit Summary" from Admissions and Records, submission of the Course Sequence Form outlining proposed progress through the major. (CSF's are available in the Nursing Office.)
6. Advisement with a faculty member prior to registration each quarter.
7. Completion of Nursing Achievement Examinations: All students are required to pass an NLN anatomy and physiology exam at the 50th percentile.
  - a. Associate degree (in nursing) graduates are required to take the Mosby Assess Test. Scores are used for counseling purposes.
  - b. Diploma graduates are required to pass each test in a battery of NLN examinations at the 50th percentile to receive 30 units of credit for lower-division nursing courses. (Tests may not be repeated.)
8. Submission of a medical report of a recent physical examination, including tuberculosis skin testing (exams available through the Student Health Center), indicating that they are able to engage in the activities required to meet the expectations of the program.

#### *Departmental Regulations*

1. Students must attain grades of "C" or better in all nursing and support courses in order to progress in the program. Nursing courses in which students earn less than a "C" may be repeated for credit only once, and this repetition requires both departmental consent and the appropriate University petition.
2. Students on academic probation must remove grade-point deficiencies before progressing further in the nursing program.
3. Students must carry malpractice insurance in the amount of *not less* than \$200,000 per occurrence and \$600,000 combined yearly limit, in order to be admitted to clinical courses. The department strongly recommends coverage of \$1,000,000 per occurrence and \$1,000,000 per year or more.
4. Students must have access to insured transportation for their clinical experience.
5. Clothing required by the clinical facility appropriate for that setting must be provided by the students with appropriate identification by name and school. (Name pin is available for purchase at the University Bookstore.)
6. Students must take the lecture and corresponding laboratory concurrently unless special permission is granted by the department chair to take the lab in two *consecutive* quarters.
7. Laboratory sections are limited to 12 students who must have consent of instructor and department.

#### *Requirements for the degree:*

1. A total of 198 quarter units is required for the Bachelor of Science degree in nursing. Up to 90 quarter units earned in transferable lower-division courses may be applied toward the degree (A.A. nursing program).



2. Courses required for the major: Nursing 302, 306, 314, 315, 354, 355, 356, 357, 380, 410, 411A, 411B, 422, 430, 431A, 431B, 472, 473; Biology 311; Health Science 451; Mathematics 350. Plus one course to be chosen from: Anthropology 331, Biology 316, Health Science 371 and Psychology 384. Electives: 11 units of elective courses approved by the departmental advisor.
3. Upper-division general education requirement: two courses. To be chosen from among the designated upper-division general education lecture courses in two of three areas: Humanities (319, 325, 330, 344, 350, 353, 360); Natural Sciences (300, 305, 310, 312, 314, 320, 325, 351); Social Sciences (300, 304, 315, 321, 325, 333, 343, 345). Note: only one 325 course may be applied toward graduation.

To accommodate the needs of full and part-time students, elective, support, general education and, when feasible, nursing lecture courses will be scheduled both during daytime and evening hours. The responsibility, however, is the student's to determine realistic unit loads in consideration of home and employment obligations.

*Health Services Credential authorizing services as a school nurse:* The program in school nursing fulfills the requirement of the credential defined by the Ryan Act. It is accredited by the Commission for Teacher Preparation and Licensing of the State of California. This interdisciplinary program involves nursing, health science and teacher education offerings. The credential, requiring 48 quarter units of credit, is awarded by the School of Education. The applicant must hold a Bachelor of Science degree in Nursing. For further information, contact the School of Education.

*Departmental Honors:* A graduating senior will be awarded departmental honors in nursing after meeting the following requirements: achieve a minimum GPA of 3.5 in all upper-division courses taken at the University or an overall GPA of at least 3.0, a clear demonstration of ability to do independent work in nursing, and recommendation by the faculty of the Department of Nursing.

### **302. NURSING HISTORY, TRENDS, ISSUES AND PROCESSES**

An overview of the professional development of nursing education and scope of practice: emerging roles, competencies and processes. (Open to majors in all disciplines.) (5 units)

### **306. CURRENT INFLUENCES IN HEALTH CARE DELIVERY**

Impact of legal, ethical, economic, political and technological forces on interprofessional relationships in the health care delivery system from the national, state and local points of view. (Open to majors in all disciplines.) (5 units)

### **314. ADULT HEALTH ASSESSMENT AND MAINTENANCE**

Principles of interviewing and recording developmental history, of comprehensive physical examination; of evaluation of data and formulation of nursing diagnoses; and of disease management and health maintenance. *Prerequisites:* admission to nursing program; Nursing 302 and 380; Biology 311 and consent of department chair prior to registration. Corequisite: Nursing 315. (5 units)

### **315. ADULT HEALTH ASSESSMENT AND MAINTENANCE: LABORATORY**

Clinical practice in skills of health assessment, planning health promotion and illness prevention of the adult over the life cycle by applying the nursing process. *Prerequisite:* consent of department chair prior to registration. Corequisite: Nursing 314. (4 units)

**354. HEALTH CARE OF WOMEN**

Selected aspects of the health care of women over the life cycle with emphasis on a holistic philosophy. Contribution of the nurse in aiding women to attain, regain and maintain a state of high level wellness. *Prerequisites: Nursing 314 and consent of department chair prior to registration.* Corequisite: Nursing 355. (2½ units)

**355. HEALTH CARE OF WOMEN: LABORATORY**

Clinical practice in skills of health assessment, planning health promotion and illness prevention of women over the life cycle by applying the nursing process. Students participate in a variety of clinical settings. *Prerequisite: consent of department chair prior to registration.* Corequisite: Nursing 354. (2 units)

**356. HEALTH CARE OF CHILDREN**

Holistic health care from infancy through adolescence, considering home, school and other environments. Role of the nurse in aiding children to attain, regain and maintain a state of high level wellness. *Prerequisites: Nursing 314 and consent of department chair prior to registration.* Corequisite: Nursing 357. (2½ units)

**357. HEALTH CARE OF CHILDREN: LABORATORY**

Clinical practice in skills of health assessment, planning health promotion and illness prevention of infants and children by applying the nursing process. Students participate in planned experiences in a variety of clinical and pre-school/school settings. *Prerequisite: consent of department chair prior to registration.* Corequisite: Nursing 356. (2 units)

**358. NURSING CARE OF CHILDREN IN THE SCHOOL SETTING**

Role of the nurse in the school setting. Focus is on health appraisal, intervention and teaching aimed at promoting responsibility among clients for their own health. Included is the nurse's role as consultant to teachers and administrators regarding the health and safety aspects of the school environment. *Prerequisites: Nursing 314, 356 and consent of department chair prior to registration.* Corequisite: Nursing 359A. (2½ units)

**359A. NURSING CARE OF CHILDREN IN THE SCHOOL SETTING: LABORATORY A**

Clinical practice in the elementary and secondary schools in appraisal of health status, vision and hearing conservation, dental and nutritional status and prevention and control of communicable diseases. Students must complete both 359A and B to apply these units toward the Health Services: School Nurse Credential. *Prerequisite: consent of department chair prior to registration.* Corequisite: Nursing 358. (2 units)

**359B. NURSING CARE OF CHILDREN IN THE SCHOOL SETTING: LABORATORY B**

Clinical practice in the elementary and secondary schools dealing with management of common conditions and illnesses, emergency care and high-risk children. Detection and management (including prevention) of child abuse, drug abuse, teenage pregnancy and other conditions which interfere with learning. Students must complete both 359A and B to apply these units to the Health Services: School Nurse Credential. *Prerequisite: consent of department chair prior to registration.* (2 units)

**380. PATHOPHYSIOLOGICAL CONCEPTS AS APPLIED TO NURSING PRACTICE**

Pathophysiological concepts as applied to nursing practice with an emphasis on common disorders as stressors causing maladaptation. *Prerequisites: admission to the nursing program, Nursing 302 and Biology 311.* (5 units)

**396. SELECTED TOPICS IN NURSING**

Selected nursing topics with specific focus. May be repeated for credit as topic changes. *Prerequisite: consent of department chair prior to registration.* (2½ units)

## 356 / Nursing

### 399. COMMUNITY SERVICE PROJECT

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of four units. No more than four units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisites: submission of a project proposal and consent of department chair prior to registration.* (Credit to be arranged: 1 or 2 units)

### 410. PSYCHOSOCIAL NURSING

Mental health concepts emphasizing the nurse's role in the prevention of mental disorders; the promotion, restoration and maintenance of mental health in individuals, families and groups in the community. *Prerequisites: Nursing 306, 314 and consent of department chair prior to registration.* Corequisite: Nursing 411A. (5 units)

### 411. PSYCHOSOCIAL NURSING: LABORATORY

Application of mental health concepts in the behavioral assessment of individuals and families; planning and evaluation of mental health nursing interventions in a variety of settings. *Prerequisite: consent of department chair prior to registration.*

A. Corequisite: Nursing 410. (2 units)

B. May be taken concurrently with Nursing 410 and 411A or must be taken in the next consecutive quarter following enrollment in A. (2 units)

### 422. INTRODUCTION TO NURSING RESEARCH

Introduction to the research process, methodology of carrying through a research project and analysis of relevant studies affecting nursing practice and the profession. *Prerequisites: Nursing 302, Mathematics 350, Health Science 451 and consent of department chair prior to registration.* (5 units)

### 430. COMMUNITY HEALTH NURSING

Concepts related to maximizing the potential for health of individuals, families and groups within their environment. Emphasis on detection and prevention of disease, promotion of health in a variety of settings, including socio-cultural influences in the application of the nursing process. *Prerequisites: Nursing 306, 314, 354, 356, Health Science 451 and consent of department chair prior to registration.* Corequisite: Nursing 431A. (5 units)

### 431. COMMUNITY HEALTH NURSING: LABORATORY

Application of nursing concepts in providing health care and health education to assist individuals, families and groups in a variety of settings; to prevent disease, promote health and maximize their potential capabilities. Development of skills in interdisciplinary and interagency collaboration and the participation in the evaluation and improvement of the health status of the community. *Prerequisite: consent of department chair prior to registration.*

A. Corequisite: Nursing 430. (2 units)

B. May be taken concurrently with Nursing 430 and 431A or must be taken in the next consecutive quarter following enrollment in A. (2 units)

### 454. ANATOMICAL/PHYSIOLOGICAL PROCESSES OF AGING

Anatomical and physiological changes occurring in the aging person. *Prerequisites: Biology 222 and upper-division standing.* (5 units)

### 455. CHRONIC DISEASES OF THE AGING POPULATION

Clinical problems of the aging person including diagnostic and therapeutic aspects. *Prerequisites: Nursing 454 and upper-division standing.* (5 units)

### 456. ADAPTATION TO CHRONIC ILLNESS

Nurse's role in development and enhancement of health-seeking behaviors in response to physiological and psychosocial stressors associated with chronic illness. *Prerequisite: upper-division standing.* (5 units)

**457. HEALTH SERVICES FOR THE NON-INSTITUTIONALIZED AGING PERSON**

Role of the nurse as case manager mobilizing and coordinating sick care, health maintenance and rehabilitation of the aged person in the home. *Prerequisite: Nursing 454.* (2½ units)

**472. PRINCIPLES OF NURSING LEADERSHIP**

Principles of leadership related to organization and delivery of nursing care and patient advocacy in a variety of settings. Theories and methods of organizational change and their application to nursing. *Prerequisite: consent of department chair prior to registration.* Corequisite: Nursing 473. Prerequisite or corequisite: Nursing 422, 430. (4 units)

**473. PRINCIPLES OF NURSING LEADERSHIP: LABORATORY**

Principles of organization, administration and leadership applied to the delivery of nursing care in acute and non-acute settings. Theories and practice in the implementation of change. *Prerequisite: consent of department chair prior to registration.* Corequisite: Nursing 472. (2 units)

**500. ADVANCED TOPICS IN NURSING**

Selected advanced nursing topics with specific focus within relatively narrow content areas. May be repeated for credit as topics change. *Prerequisite: upper-division standing or consent of instructor.* (5 units)

**580. CLINICAL PRECEPTORSHIP IN PRIMARY HEALTH CARE**

Intensive experience in performing the diagnostic and treatment procedures essential to the scope of practice of a California certified nurse practitioner including physical diagnosis, psychosocial assessment and management of health-illness needs in primary health care. *Prerequisite: completion of the theoretical portion of the Nurse Practitioner Certificate curriculum.*

- A. (6 units)
- B. (6 units)
- C. (6 units)

**595. INDEPENDENT STUDY**

Research conducted under the direction of a faculty member. A total of six units in Nursing 595 may be applied toward graduation. *Prerequisites: Nursing 422, senior standing, a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## PARALEGAL STUDIES

*Department of Political Science  
Administration Building, Room 130  
887-7238*

The courses listed below are offered in support of the certificate program in paralegal studies, Page 117. Further information about this certificate program can be obtained from the Department of Political Science.

It is strongly advised that students take Paralegal Studies 385 in the first quarter of the program as it provides an introduction to legal language.

### **370. WILLS, ESTATES AND TRUSTS**

Study of law relating to the control and disposition of property inter vivos (between living persons) and after death, wills, intestate succession (descent and distribution), future interests and trusts, estates in land, principles of estate planning and administration of an estate. (5 units)

### **371. CONTRACT LAW**

Study of law relating to contract formation, formalities, performance and breach. Effect on a contractual relationship of various types of subsequent conduct by the contracting parties and remedies available for breach. Introduction to the Commercial Code of California. (5 units)

### **372. TORT LAW**

Legal liability for wrongful interference with the person; tangible property, real and personal; intangible interests; and advantageous relations. (5 units)

### **373. PROPERTY LAW**

Basic principles of law relating to various types of property interests: real and personal, tangible and intangible, public and private; acquisition; bailment; fixtures; deeds; escrow, recording and search of public documents and security instruments in connection with real property. (5 units)

### **376. FAMILY LAW AND COMMUNITY PROPERTY**

Formation and dissolution of the family unit: custody, support, property rights and obligations. (5 units)

### **377. TRIAL PRACTICE**

Studies of trials at common law and in equity, including examination, competency and privileges of witnesses, judicial notice, burden of proof and presumptions; tactics of litigation, discovery, fact investigation, jurisdiction, remedies, civil procedure and drafting of pleadings. (5 units)

### **378. CORPORATE LAW**

Legal status of the corporate entity, corporate structure and distribution of powers and duties among shareholders, directors and officers. (5 units)

### **380. CRIMINAL LAW**

Theory and practice of criminal law from a case study approach. (5 units)

### **385. LEGAL RESEARCH AND WRITING**

Methods of legal research, problem analysis, and writing techniques. Emphasis on developing ability to write concise case briefs, case syntheses and legal documents. (5 units)

**575. INTERNSHIP IN PARALEGAL STUDIES**

Supervised work and study in public and private legal organizations. *Prerequisites: completion of 25 units of paralegal certificate course work and consent of paralegal studies coordinator.* (5 units)

**590. SEMINAR IN PARALEGAL STUDIES**

Selected current issues and topics in the paralegal field. May be repeated for credit as topics change. *Prerequisite: Paralegal Studies 385.* (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)



## PHILOSOPHY

*Department of Philosophy  
Pfau Library Building, Room 236B  
887-7469*

Philosophy is humanity's oldest intellectual discipline. Philosophy's concerns range from questions fundamental to human understanding such as the nature of man, knowledge, truth, being, existence, right, freedom and the good life; to attempts to clarify and understand problems such as the equitable distribution of society's goods, political violence, the right to privacy and governmental honesty.

Because at all levels philosophy aims at the construction of sound arguments and clear concepts, students develop high levels of skill in the analysis and organization of ideas. Acquisition of these basic intellectual skills is excellent preparation for further study and for entering a variety of career fields. Philosophy is a strongly recommended prelaw major and can provide solid background for careers in journalism, public service, government and politics among others. In addition, it is excellent preparation for graduate and professional study in a number of fields.

### Requirements for the Bachelor's Degree

Requirements for the major: 50 units including 10 units from the history sequence (Philosophy 301, 305, 307); 5 units from a systematic field (Philosophy 312, 350, 360, 370, or 380); and either emphasis Area A (systematic philosophy) or emphasis Area B (philosophy and public affairs).

Area A: the additional course from the history sequence (see above) plus Philosophy 312, 350 and 380.

Area B: 20 units chosen from Philosophy 320, 340, 355, 365, 465.

Up to 15 units in the philosophy major may be lower division.

In order to meet entrance standards for most graduate departments of philosophy and to qualify for strong recommendations from this department, students planning to apply for graduate programs should also complete 10 units of additional upper-division elective philosophy course work, plus a minimum of 20 units, or equivalent proficiency, in one foreign language (preferably French, German, Latin or Greek), with attainment of demonstrable reading skill.

*Requirements for the minor:* 30 units of philosophy course work, no more than 10 of which may be lower division; the 30 units must include at least 5 units from the sequence of readings in the history of philosophy: 301, 305; and 5 units from a systematic field chosen from 312, 350, 360, 370.

*Departmental Honors:* The departmental honors program is individually designed to suit the interests of each student. Each student, with the advice of a faculty advisor, prepares a book list which forms the basis of an honors examination. Successful completion of the examination results in the awarding of departmental



## **362 / Philosophy**

honors. Application for the honors program must be made by the beginning of the senior year.

### **Certificate Program**

The Department of Philosophy offers an interdisciplinary certificate program in Religious Studies. Details concerning this program are found on Page 118.

#### **105. ARGUMENT AND EVIDENCE**

Analysis of various kinds of reasoning employed in everyday life and in more specialized contexts, to develop each student's skill in understanding and using carefully constructed arguments. Illustrations will include materials drawn from contemporary issues. (5 units)

#### **190. STUDIES IN PHILOSOPHY**

An introduction to philosophical thinking by means of reading, discussing and writing about selected philosophical works. Students are encouraged to develop their own philosophical views in a critical exchange with the views of the philosophers studied. (5 units)

#### **301. GREEK AND ROMAN PHILOSOPHY**

Major philosophic movements from the Pre-Socratics and Plato to the Stoics, Epicureans, Sceptics and Mystics. (5 units)

#### **305. MODERN PHILOSOPHY, SIXTEENTH-NINETEENTH CENTURIES**

Roots of modern philosophy and science from Galileo and Descartes to Hegel and Marx. (5 units)

#### **307. CONTEMPORARY PHILOSOPHY**

Recent directions in philosophy such as existentialism, phenomenology, positivism, pragmatism, ordinary language, structuralism, analysis and the like. (5 units)

#### **312. PHILOSOPHY OF LOGIC**

Inquiry into diverse systems and conceptions of logic, ancient to modern. (5 units)

#### **314. SYMBOLIC LOGIC**

Introduction to symbolic logic. Propositional logic, first order quantification theory and various tests of validity for these systems. Some metatheory. (5 units)

#### **316. DISCOVERY AND METHOD**

Studies in the philosophy of the natural and social sciences treating questions such as the nature of creativity, proof, explanation, experiment and scientific revolutions. (5 units)

#### **320. PHILOSOPHY OF EDUCATION**

An inquiry into some characteristic problems, through consideration of works by authors such as Plato, Rousseau, Newman and Dewey. (5 units)

#### **330. PHILOSOPHY OF LANGUAGE**

Inquiry into the nature and uses of language, focusing on concepts such as meaning, reference, metaphor, speech act and predication. (5 units)

#### **340. PHILOSOPHY OF MAN**

Inquiry into traditional and contemporary views of the nature of man and their implications for human life. (5 units)

#### **350. ETHICS**

Analysis of problems intrinsic to human action, through the study of alternative formulations offered by some great philosophers, present and past. (5 units)

**355. CONTEMPORARY ETHICAL ISSUES**

Consideration of moral problems intensified by the rapid pace of social, economic and technological changes: genetic engineering, euthanasia, "the new sexual ethics," abortion, the right to privacy. (5 units)

**357. PHILOSOPHY AND SEXUAL POLITICS**

Examination of whether there are ethically significant differences in male and female human nature and, if so, whether these justify differential treatment and social roles. (5 units)

**360. POLITICAL PHILOSOPHY**

Some important ancient, medieval and modern works are examined systematically to illuminate issues concerning community action. (5 units)

**365. POWER, AUTHORITY, FORCE AND VIOLENCE**

Inquiry into the relations and conflicts between might and right, using philosophic and historical documents. Focus is on the role of ethical justifications and reasoned arguments in action. (5 units)

**370. PHILOSOPHY OF ART AND CRITICISM: AESTHETICS**

Principles and problems of art are analyzed with the help of important writings that raise questions of general theory and critical practice. (5 units)

**380. BEING, EXISTENCE AND KNOWING**

Inquiry into first principles underlying reflection on the nature of the universe, man and his attempts to achieve knowledge. (5 units)

**450. MAN'S SEARCH FOR GOD OR GODS**

A probing of some significant ideas about God and the philosophy of religion. (5 units)

**452. CLASSICS OF EASTERN THOUGHT**

Study of selected Eastern masterpieces such as the *Bhagavad Gita*, *The Tao of Lao Tzu* and the *Dhammapada*. (5 units)

**465. PHILOSOPHY OF LAW**

Intensive study of the concept of law and its relation to power, command, reason, nature, justice, prediction. (5 units)

**490. SPECIAL TOPICS IN PHILOSOPHY**

Study of a specially selected idea, problem or theory in philosophy. Course may be repeated for credit when topic is changed. (5 units)

**595. INDEPENDENT STUDY**

Intensive study of topics not offered in other existing philosophy courses. No more than 5 units of Philosophy 595 can apply towards the philosophy major without departmental approval. *Prerequisites: a minimum grade-point average of 3.0, consent of instructor and departmental approval of a project submitted in a standard application filed no later than the end of the first week of classes.* (Credit to be arranged: 2–5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## PHYSICAL EDUCATION

*Department of Physical Education  
Physical Education Building, Room 122  
887-7561*

The Department of Physical Education offers a curriculum leading to a Bachelor of Science with a major in physical education. In addition, a minor in physical education, a minor in recreation and an adapted physical education specialist credential are offered.

The major in physical education is designed for the student interested in preparing to (1) become a physical education teacher; (2) select a career in nonteaching fields related to physical education, such as commercial physical education, sports business and commercial leisure services; and (3) pursue graduate work in physical education.

### Requirements for the Bachelor's Degree

*Requirements for the major:*

1. Physical Education 210A, 210B, 210C, 210D, 254, 262C, 262F, 262H;
2. One course selected from Physical Education 262B, 262G and 262J;
3. Two courses selected from Physical Education 262A, 262D, 262E and 262K. Physical Education 262B, 262G and 262J may be taken if they were not taken to satisfy requirement number 2;
4. Four courses selected from Physical Education 266A, 266B, 266C, 266D and 266E;
5. Physical Education 280, 320, 321, 322, 355, 370, 454, 470, 480, 481, 495;
6. Biology 222.

*Note: For students majoring in physical education, successful completion of Physical Education 262 and Physical Education 266 will fulfill the University physical education activity requirement.*

**Teaching Credential Program:** The Bachelor of Science in Physical Education is approved as a single subject teaching credential program. In addition to the requirements of the major, students must complete certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements for the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

**Requirements for a minor in physical education:** Physical Education 210A, 254, 262, 266, 280, 321 or 322, 470 and 481 (For 262: select any four; for 266: select any two).

**Requirements for a minor in recreation:** Physical Education 200, 203, 254, 271, 277, 365 and 470.

*Requirements for an adapted physical education specialist credential:* Physical Education 330; four courses selected from Physical Education 331A, 331B, 331C, 331D and 331E, and Education 530.

*Departmental Honors:* a graduating senior will be awarded departmental honors in physical education after meeting the following requirements:

1. 3.5 GPA in all physical education course work,
2. 3.0 GPA overall,
3. Over one-half of the course work for the physical education major must be taken at California State University, San Bernardino,
4. Recommendation by the physical education faculty.

#### *Activity Courses* (Physical Education 101–149)

The activity course program offers a wide variety of classes which provides students the opportunity to participate in physical activity on a regular basis; develop, improve and maintain a degree of physical fitness; learn and practice life-time sports skills; and acquire the knowledge that physical exercise is essential for healthful adult living in current society. Classes are coeducational except where the type of activity deems it inappropriate. Not all courses listed are offered each academic year.

#### *Activity Courses* (Intercollegiate Athletics, Physical Education 160 and 190)

These courses are designed for those students participating in intercollegiate sports. If a student does not become a member of the squad, they will need to drop the course.

*Requirements for graduation:* Students under 25 years of age are required to complete six units of physical education activity courses (numbered 150 and below). Six additional units of physical education activity courses (numbered 190 and below) for a total of 12 units maximum may be applied toward graduation. It is recommended that these courses be taken during the first year on campus. Students 25 years of age or older may substitute six credit hours of their choice. Students who need to meet a requirement in health in preparation for a teaching credential should consult the School of Education.

All activity courses (courses numbered 101 through 199) are graded credit/no credit.

The following activities include instruction at all skill levels unless specified in the class schedule as limited to beginning, intermediate or advanced level instruction.

#### **101. INDIVIDUAL AND DUAL ACTIVITIES** (2 units)

- |                  |                      |
|------------------|----------------------|
| A. Archery       | G. Gymnastics        |
| B. Badminton     | N. Racquetball       |
| C. Bicycling (a) | P. Skiing-Alpine (a) |
| D. Bowling (a)   | Q. Skiing-Nordic (a) |
| F. Golf (a)      | S. Tennis            |

#### **114. PHYSICAL FITNESS AND CONDITIONING ACTIVITIES** (2 units)

- |                      |                    |
|----------------------|--------------------|
| A. Body conditioning | E. Weight training |
| B. Circuit training  | F. Yoga            |
| C. Jogging           |                    |

- 
- a. Field trips required  
 b. Red Cross certification available  
 c. NAUI certification available  
 d. Prerequisite: skin diving or consent of instructor  
 e. Doctor's physical examination required

## 366 / Physical Education

### 117. COMBATIVE ACTIVITIES (2 units)

- B. Fencing
- C. Judo
- D. Karate
- E. Wrestling

### 121. TEAM ACTIVITIES (2 units)

- A. Basketball
- C. Flag football
- F. Soccer
- G. Softball
- J. Team handball
- K. Volleyball

### 137. AQUATIC ACTIVITIES (2 units)

- A. Advanced life saving (b)
- C. Basic rescue and water safety (b)
- D. Boating and canoeing (a,b)
- F. Scuba diving (a, c, d, e)
- G. Skin diving (a,c)
- H. Springboard diving
- J. Swimming (b)
- K. Water polo

### 141. DANCE ACTIVITIES (2 units)

- A. Aerobic
- B. Ballet
- E. Folk
- F. Jazz
- G. Jazz exercise
- H. Modern
- J. Social
- K. Square

### 146. OUTING SKILLS ACTIVITIES (2 units)

- A. Backpacking (a)
- B. Camping (a)
- C. Mountaineering (a)
- D. Orienteering (a)
- E. Survival skills (a)

### 149. INDEPENDENT ACTIVITY PROJECT

Activity project designed to satisfy individual needs of students who cannot meet requirements of a regular activity class due to a medical, physical or other conflict; under the supervision of a faculty member. *Prerequisite: consent of department chair.* (2 units)

### 160. WOMEN'S INTERCOLLEGIATE ACTIVITIES

Enrollment limited to members of intercollegiate sports teams. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Graded credit/no credit. (2 units each)

- A. Volleyball
- B. Cross Country
- C. Basketball
- D. Tennis
- E. Softball
- F. Swimming

### 190. MEN'S INTERCOLLEGIATE ACTIVITIES

Enrollment limited to members of intercollegiate sports teams. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Graded credit/no credit. (2 units each)

- A. Soccer
- B. Cross Country
- C. Basketball
- D. Tennis
- E. Golf
- F. Baseball
- G. Water Polo
- H. Swimming

### 200. FIRST AID

The emergency care and treatment of illnesses and injuries including training in cardiopulmonary resuscitation (CPR). May lead to certification in Standard First Aid from the American Red Cross and/or CPR from the American Heart Association. (2 units)

- 
- a. Field trips required
  - b. Red Cross certification available
  - c. NAUI certification available
  - d. *Prerequisite: skin diving or consent of instructor*
  - e. Doctor's physical examination required

**203. INTRODUCTION TO RECREATION**

Orientation to recreation as a profession. Meaning, content, history, philosophy and scope of the field of recreation. (5 units)

**210. TOPICS IN THE FOUNDATIONS OF PHYSICAL EDUCATION**

Courses designed to survey the fundamental principles, objectives, history and philosophies in the discipline of physical education. (2½ units each)

- A. Introduction to Physical Education
- B. Introduction to Adapted Physical Education
- C. History of Physical Education
- D. Philosophy of Physical Education

**254. FIELD WORK IN PHYSICAL EDUCATION OR RECREATION I**

A supervised experience in the Department of Physical Education under the direction of a faculty member. *Prerequisite: one course from the Physical Education 262 sequence or one course from the Physical Education 266 sequence.* (2 units)

**262. TECHNIQUES AND SKILLS OF INDIVIDUAL/DUAL ACTIVITIES**

The development of techniques and skills of individual/dual activities. *Prerequisite: Physical Education 210A or 210B or 210C or 210D.* (1 unit each)

- |                             |                  |
|-----------------------------|------------------|
| A. Archery                  | F. Gymnastics    |
| B. Badminton                | G. Racquetball   |
| C. Dance                    | H. Swimming      |
| D. Fitness and Conditioning | J. Tennis        |
| E. Golf                     | K. Track & Field |

**266. TECHNIQUES AND SKILLS OF TEAM ACTIVITIES**

The development of techniques and skills of team activity. *Prerequisites: Physical Education 210A or 210B or 210C or 210D.* (1 unit each)

- |                    |               |
|--------------------|---------------|
| A. Basketball      | D. Softball   |
| B. Football (Flag) | E. Volleyball |
| C. Soccer          |               |

**271. RECREATION LEADERSHIP**

Organization, supervision and administration of recreation programs and practical experience in recreation situations which provide the opportunity to develop leadership skills. (5 units)

**277. RECREATION PROGRAMMING**

Materials and methods used in planning and conducting programs in recreation, such as social recreation, dramatics, art, sports. *Prerequisite: Physical Education 203 or 271.* (5 units)

**280. PREVENTION AND TREATMENT OF ATHLETIC INJURIES**

Theories and methods in the prevention, assessment, treatment and rehabilitation of athletic injuries, including practical experience. *Prerequisite: Biology 222.* (5 units)

**320. MOTOR LEARNING**

Scientific analysis of perceptual motor behavior; learning, memory, transfer theories, motor control and motor performance in physical activity. (5 units)

**321. SPORT AND SOCIETY**

An examination of sociocultural aspects of sport with an emphasis on the American sport structure. (2½ units)

**322. PSYCHOLOGICAL ASPECTS OF SPORT**

The psychological realm of sport and physical activity including the nature, significance and development of sport psychology. (2½ units)

## 368 / Physical Education

### 330. PHYSICAL EDUCATION FOR THE EXCEPTIONAL INDIVIDUAL

Investigation and analysis of disabilities encountered in the environment of physical education. *Prerequisites: Physical Education 210B and 320, or consent of department.* (5 units)

### 331. TOPICS IN ADAPTED PHYSICAL EDUCATION

Materials, techniques of assessment, methods of instruction and activities utilized in physical education for individuals with disabilities. *Prerequisite: Physical Education 330.* (2½ units each)

- A. Adapted aquatics [American Red Cross certification]
- B. Physically handicapped
- C. Learning handicapped
- D. Communicatively handicapped
- E. Severely handicapped

### 342. METHODS AND TECHNIQUES OF COACHING

Principles, methods and techniques relative to interscholastic athletics. No more than 10 units from the Physical Education 342 series may be applied to the bachelor's degree program. *Prerequisite: physical education major or consent of department.* (5 units each)

- A. Baseball
- B. Basketball
- C. Golf
- D. Soccer
- E. Swimming
- F. Tennis
- G. Softball
- H. Track and Field
- J. Volleyball
- K. Badminton

### 355. PHYSICAL EDUCATION FOR CHILDREN

Development of physical education programs for children ages 5–12 including selection of activities. (5 units)

### 362. WATER SAFETY INSTRUCTION

Materials and methods in organizing school, community and camp aquatic programs. Supervised practice in teaching aquatics. Meets standards for Red Cross certification for teaching all levels of swimming, life saving and small craft safety. *Prerequisite: current advanced life-saving certificate.* (2½ units)

### 365. OUTDOOR EDUCATION AND CAMP LEADERSHIP

Knowledge, concepts and techniques for the administration and organization of camps and for working with people in the out-of-doors. Includes a supervised leadership experience and field trips to observe camp facilities, programs and resources. (5 units)

### 370. MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Selection, application and interpretation of tests utilized in physical education and recreation. *Prerequisites: Physical Education 210A and 210B.* (5 units)

### 454. FIELD WORK IN PHYSICAL EDUCATION OR RECREATION II

A supervised leadership experience in a physical education, recreational or intramural setting. *Prerequisites: Physical Education 254 and 470.* (3 units)

### 470. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS

Organizational and administrative structures, problems, issues and practices relevant to physical education and athletics in various settings. *Prerequisites: one course chosen from the Physical Education 262 sequence and one course from the Physical Education 266 sequence.* (5 units)

**480. KINESIOLOGY**

Analysis of human movement as based on anatomical, neuromuscular and mechanical principles. *Prerequisite: Biology 222.* (5 units)

**481. EXERCISE PHYSIOLOGY**

Effects of physical activity on the physiological systems of the human body. *Prerequisite: Biology 222.* (5 units)

**495. SEMINAR IN PHYSICAL EDUCATION**

Selected topics in physical education and recreation. *Prerequisite: senior standing or consent of department.* (2½ units)

**595. INDEPENDENT STUDY**

Experimental effort, field or library research conducted under the direction of a faculty member. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: Consent of instructor, department chair and school dean.* (5 units)



## PHYSICS

*Department of Physics*  
*Physical Sciences Building, Room 27*  
*887-7392 or 887-7344*

Traditionally physics graduates either have gone on to graduate work in physics or have found employment in industrial or governmental laboratories. Other opportunities which have recently become interesting for physics graduates include atmospheric physics (including air pollution studies), geophysics, radiation safety, oceanography, astrophysics, technical administration, biophysics, computer science and medical instrumentation development.

The program for a bachelor of arts degree in physics provides basic knowledge in the main subject areas of physics as well as an opportunity for students to elect a considerable number of courses in other disciplines. The bachelor of science program includes additional course work in physics and related fields which further prepares a student for employment or graduate work. A candidate for the B.S. degree may also take several courses selected from any of the offerings of the University.

### Requirements for the Bachelor's Degrees

*Requirements for the bachelor of arts degree:* Physics 221-222-223, 225-226, and 22½ additional upper-division units in physics; 5 units of computer science; Chemistry 215 or equivalent; and completion of a lower-division calculus sequence (Mathematics 200-201-202-203 or equivalent). Chemistry 216 is strongly recommended.

*Requirements for the bachelor of science degree:* Physics 221-222-223-225-226, 114, and 32.5 units selected from 306, 310, 313, 421, 422, 423, 425, 430 and 440; Chemistry 215; Mathematics 200-201-202-203; 15 units of computer science courses which are applicable to the computer science degree; 10 additional upper-division units to be selected with the approval of the Physics Department from offerings of the School of Natural Sciences. Chemistry 216, which is strongly recommended may be applied towards this last requirement.

Completion of the calculus sequence is prerequisite for most upper-division courses leading to a major in physics. A comprehensive examination covering the major field of study is required in the senior year.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in physical science must either within the major or as electives in addition to the requirements for the Bachelor of Arts or Bachelor of Science degree in Physics take Chemistry 215, 216, 217 and 221, Earth Science 101, and 301 or 310, and Natural Sciences 100. In addition, certain prerequisites and professional education courses are required. For information about admission to the teacher education program, education courses required or the specific requirements of the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Requirements for a minor in physics:* Physics 221, 225, 222, 226 and 223; 10 units of upper-division physics; and 15 units of a lower-division calculus sequence (Mathematics 200-201, and 202 or 203).

#### 100. PHYSICS IN THE MODERN WORLD

Examination of physics and its contemporary use, including topics of: optics, heat, electricity, sound, motion and radioactivity. This course is intended for students with little background in science. Lecture and two hours of laboratory. *Prerequisite:* satisfactory score on the entry-level mathematics examination. (5 units)

#### 113. BASIC ELECTRICITY

Basic circuit concepts including voltage, current, resistance, capacitance, amplification, diodes and oscilloscope use. This course is the first half of Physics 115. Two hours of lecture and one hour and one half of laboratory. May not be taken for credit by students who have received credit for Physics 115. *Prerequisites:* Mathematics 120 and 200. (2½ units)

#### 114. BASIC DIGITAL ELECTRONICS

Logic gates, flipflops, transmission lines, bit error avoidance techniques, and a brief introduction to Boolean algebra. Two hours of lecture and one hour and one half of laboratory. May not be taken for credit by students who have received credit for Physics 115. *Prerequisites:* Physics 226 or 113 and Mathematics 120 and 200. (2½ units)

#### 115. BASIC ELECTRICITY AND DIGITAL ELECTRONICS

Basic circuit concepts including voltage, current, resistance, capacitance, amplification, diodes, oscilloscope use, logic gates, flipflops, transmission lines, bit error avoidance techniques and a brief introduction to Boolean algebra. Four hours lecture and three hours of laboratory. May not be taken for credit by students who have received credit for either Physics 113 or 114. *Prerequisites:* Mathematics 120 and 200. (5 units)

#### 121. BASIC CONCEPTS OF PHYSICS I

First course of a two-course sequence surveying the basic concepts of physics, primarily for students entering fields relating to the biological sciences. Topics include waves, optics and mechanics. Lecture only. *Prerequisites:* two years of high school algebra and one year of high school geometry. Recommended preparation: Mathematics 120 or Mathematics 200. Corequisite: Physics 225. (4 units)

#### 122. BASIC CONCEPTS OF PHYSICS II

Continuation of Physics 121. Topics include electricity, electric circuits, magnetism, fluids and modern physics. Lecture only. *Prerequisite:* Physics 121 with a grade of C or better. Corequisite: Physics 226. (4 units)

#### 221. CLASSICAL MECHANICS

First course of a three-course sequence surveying physics. For students with a strong background in mathematics and the sciences. Lecture only. *Prerequisite or corequisite:* Mathematics 200. Corequisite: Physics 225. (4 units)

#### 222. STATIC AND DYNAMIC ELECTRICITY

Lecture only. *Prerequisite:* Physics 221 with a grade of C or better. *Prerequisite or corequisite:* Mathematics 201. Corequisite: Physics 226. (4 units)

#### 223. WAVES AND MODERN PHYSICS

Lecture and three hours of laboratory. *Prerequisite:* Physics 222 with a grade of C or better. (5 units)

#### 225. PHYSICS LABORATORY I

Laboratory accompanying Physics 121 or 221. (2 units)

## 372 / Physics

### 226. PHYSICS LABORATORY II

Laboratory accompanying Physics 122 or 222. (2 units)

### 306. INTERMEDIATE CLASSICAL MECHANICS

A continuing study of dynamics with an introduction to advanced formulations. Lecture only. *Prerequisites: Physics 223 and Mathematics 203.* (5 units)

### 310. MATHEMATICAL METHODS OF PHYSICS I

Vector analysis, matrices and introductory complex analysis. Applications of ordinary differential equations and Laplace transforms. Emphasis on techniques applicable to the problems of physics. (Also offered as Mathematics 310. Students may not receive credit for both.) *Prerequisites: Mathematics 202, Physics 222. Prerequisite or Corequisite: Mathematics 203.* Mathematics 331 is recommended but not required. (5 units)

### 313. ELECTRODYNAMICS

Derivation and applications of Maxwell's equations. Lecture only. *Prerequisites: Physics 222, 310, and Mathematics 203.* (5 units)

### 315. INTRODUCTION TO MODERN OPTICS

An introduction to geometrical optics, physical optics and lasers. *Prerequisites: Physics 223, 310 and Mathematics 203.* (5 units)

### 370. INTRODUCTION TO ASTROPHYSICS

Basic principles of stellar structure and evolution, galactic structure, extragalactic astronomy and cosmology. *Prerequisites: Physics 223, 310 and Mathematics 203.* (5 units)

### 418. TOPICS IN CLASSICAL PHYSICS

Advanced study in classical physics including such topics as Lagrangian and Hamiltonian formulation in classical mechanics and advanced applications of Maxwell's equations and electromagnetic waves in advanced electrodynamics.

A. Advanced Mechanics. *Prerequisite: Physics 306.* (5 units)

B. Advanced Electrodynamics. *Prerequisite: Physics 313.* (5 units)

### 421. MODERN PHYSICS

An introduction to contemporary physics. Lecture only. *Prerequisites: Physics 223, Mathematics 202.* (5 units)

### 422. QUANTUM PHYSICS

A continuation of Physics 421 with an introduction to quantum mechanics. *Prerequisites: Physics 306, 310, 313, and 421 and Mathematics 203.* (5 units)

### 423. THERMAL AND STATISTICAL PHYSICS

Statistical behavior of systems of large numbers of particles, with applications. Thermostatistics is shown to be derivable from first principles by application of statistical methods. Lecture only. *Prerequisites: Physics 421 and Mathematics 203.* (5 units)

### 425. MATHEMATICAL METHODS OF PHYSICS II

A continuation of Mathematics/Physics 310 with emphasis on advanced topics including Fourier transforms, functions of a complex variable and partial differential equations. Additional topics chosen from: tensor analysis, linear algebra and ordinary differential equations. (Also offered as Mathematics 425. Students may not receive credit for both.) *Prerequisite: Mathematics or Physics 310.* Mathematics 331 is strongly recommended. (5 units)

### 430. ADVANCED PHYSICS LABORATORY

Selected advanced experiments appropriate to a student's previous preparation. May be repeated for credit. *Prerequisites: Physics 222 and 226.* (2½ units)

**432. INTRODUCTION TO SOLID STATE PHYSICS**

Basic concepts of solid state physics. *Prerequisites: Physics 306, 310, 313, 421, 422 and Mathematics 203.* (5 units)

**440. SEMINAR: TOPICS IN CONTEMPORARY PHYSICS**

A lecture course on a selected topic not otherwise covered in the physics curriculum. Possible topics include: astrophysics, advanced electrodynamics, advanced mechanics, solid state physics, semiconductor devices, advanced quantum mechanics. May be repeated for credit as topics change. (2½ units)

**595. INDEPENDENT STUDY**

Research in physics conducted under the direction of a faculty member. A total of six units in Physics 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 1 to 6 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## POLITICAL SCIENCE

*Department of Political Science  
Administration Building, Room 130  
887-7238*

The major in political science is designed for students who desire a liberal arts program with an emphasis on politics, government and public policy; plan a career in government service or public administration; seek training for positions in foreign service agencies of the United States government, international organizations or corporations; intend to study law; wish to prepare for teaching in the public schools; or intend to work for advanced degrees in political science in preparation for college or university teaching or for government service.

The department offers courses in the following fields: American government and politics, comparative politics, international relations, political theory, and public policy and administration.

### Requirements for the Bachelor's Degree

*Requirements for the major:* a minimum of 50 quarter units in political science including Political Science 200, 203, 314 and 35 upper-division political science units. The 35 units are distributed as follows: five units from American government and politics (320, 326, 428, and 431); five units from comparative government (300, 304, and 306); five units from international relations (325, 400, 484, 500, and 510); five units from political theory (310, 311, and 313); five units from public law (328, 410, and 411); and 10 additional units of electives in upper-division course work in political science. (Political Science 575 and 595 will count as electives only after approval by the department chair. With approval of the department chair, up to 10 units in related fields may be counted toward the upper-division course requirement in political science.) Either Mathematics 110, 120 or 200 is also required.

*Requirements for alternative major (single subject waiver for prospective secondary school teachers):* A core of 45 units consisting of the following: Political Science 200, 203, 306, 314, 330, 450; Political Science 410 or 411; Political Science 300 or 304; Political Science 400 or 500 or 510. Electives totaling  $22\frac{1}{2}$  units are to be chosen from upper-division political science electives, with the approval of the departmental advisor. Students are strongly recommended to choose at least one elective from among: Political Science 310, 311, 313. Up to five units of upper-division course work in related fields may be counted toward the upper-division elective course requirement in the major.

*Requirements for a minor in political science:* 30 units including Political Science 200 and 203, and at least 20 units of upper-division political science course work chosen in consultation with an advisor.

*Requirements for a minor in pre-law:* Political Science 328, 410 and 411 plus any two of the following: Management 330, History 540, Philosophy 465, Political Science 535 and Sociology 359.

*Departmental Honors:* Students majoring in political science are eligible to receive honors in political science at graduation when they meet the following requirements: 3.5 grade-point average in all political science courses attempted, at least half of all work in political science completed at this university, and recommendation for departmental honors by political science faculty.

*Pi Sigma Alpha:* students majoring in political science who have a grade-point average of at least 3.0 overall and 3.0 in the major have the opportunity to join Pi Sigma Alpha, the national honor society in political science. Additional information can be obtained from the Department of Political Science.

### **Certificate Programs**

The Department of Political Science offers certificate programs in international relations and paralegal studies. Details concerning these certificate programs may be found on Pages 113 and 117.

### **National Security Studies (M.A.)**

This graduate program emphasizes international relations and national defense. Refer to Page 345 for specific requirements. Information, brochures and applications are available through the National Security Studies program office, Biology Building, Room 29b, (714) 887-7632 or at George Air Force Base, (619) 246-8783.

#### **101. INTRODUCTION TO AMERICAN GOVERNMENTAL INSTITUTIONS**

Basic introduction to American institutions. Intended primarily for foreign students with limited knowledge of American government. *Prerequisite: consent of instructor.* (2½ units)

#### **200. INTRODUCTION TO POLITICAL SCIENCE**

Introduction to the scope of the discipline, to its basic philosophical concepts, methods, and to political action in various cultural contexts. (5 units)

#### **203. AMERICAN GOVERNMENT**

Political structure and processes of the American governmental system. This course meets the state code requirements in U.S. Constitution, U.S. history and state and local government. (5 units)

#### **300. WESTERN POLITICAL SYSTEMS**

Major Western political systems. (5 units)

#### **304. COMMUNIST POLITICAL SYSTEMS**

Examination of the relationships among communist political systems. (5 units)

#### **306. DEVELOPING POLITICAL SYSTEMS**

Political systems, governmental structures, political orientation and foreign policies of developing nations. (5 units)

#### **310. CLASSICAL POLITICAL THOUGHT**

Classical political thought through a consideration of representative political thinkers such as Plato, Aristotle, Thucydides, Cicero, Lucretius. (5 units)

## **376 / Political Science**

### **311. FOUNDATIONS OF MODERN POLITICAL THOUGHT**

Major political ideas of the early modern period ranging from Machiavelli through Hobbes, Locke, Rousseau and Burke. (5 units)

### **313. CONTEMPORARY POLITICAL THOUGHT**

Contemporary political ideas and thinkers ranging from Hegel and Marx through Lenin, Gandhi and Mao. (5 units)

### **314. AMERICAN POLITICAL THOUGHT**

American political ideas from the colonial period to the present. This course meets the state code requirement in U.S. history. (5 units)

### **320. THE LEGISLATIVE PROCESS**

Law-making processes in the United States and/or other selected political systems. (5 units)

### **325. AMERICAN FOREIGN POLICY**

Political analysis of American foreign policy with emphasis on foreign policy making in the nuclear age. (5 units)

### **326. POLITICAL PARTIES AND INTEREST GROUPS**

Organization, objectives, and activities of political parties and political interest groups and their functions in modern political systems. (5 units)

### **328. JUDICIAL PROCESS**

Process of judicial decision-making with emphasis on factors influencing that process and concepts of judicial roles. (5 units)

### **330. STATE AND LOCAL POLITICS**

Comparison of state and local political systems within the American Federal System. This course meets the state code requirement in state and local government. (5 units)

### **340. SEX AND POLITICS**

Emphasis will be on sex roles in traditional and modern political systems, sex stereotypes in politics; effects of changing technology on conventional male and female roles; dynamics of change affecting the woman's place in the political world. (5 units)

### **342. THE POLITICS OF ENVIRONMENT**

Environmental problems in their political context, including air, water, thermal and noise pollution, solid waste, population growth, resource management, and the political costs and benefits of environmental protection. (5 units)

### **350. POLITICS OF BLACK AMERICA**

Black liberation ideologies and attempts at their implementation within the American political system. (5 units)

### **351. THE CHICANO AND POLITICS**

Political factors affecting the contemporary Mexican-American community; involvement, organization and role of the individual in the political process. (5 units)

### **380. INTRODUCTION TO PUBLIC ADMINISTRATION**

An introduction to the purposes, methods and characteristics of public management, including organization of public services, roles and relationships of public administrators, accountability and the achievement of public goals. (Also offered as Public Administration 380. Students may not receive credit for both.) (5 units)

### **399. COMMUNITY SERVICE PROJECT**

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of 4 units. No more than four units of credit for

Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: a project proposal must be approved by the department in advance of enrollment.* (Credit to be arranged: 1 or 2 units)

**400. INTERNATIONAL POLITICS**

Selected theories and evolving patterns of international politics as developed within the nation-state system. (5 units)

**410. AMERICAN CONSTITUTIONAL LAW**

Principles of the American Constitution as announced by the Supreme Court in selected cases. Judicial review, separation of powers, presidential power, federalism and commerce are included. This course meets the state code requirement in the U.S. Constitution. (5 units)

**411. THE BILL OF RIGHTS**

Limitation on federal and state power arising out of the provisions of the first eight and the 14th Amendments to the Constitution. Modern developments are stressed. This course meets the state code requirement in the U.S. Constitution. (5 units)

**428. FORMULATION OF PUBLIC POLICY**

Basic approaches to public policy analysis, emphasizing interaction between substance and process in policy development. (5 units)

**431. THE AMERICAN PRESIDENCY**

Office and institution of the presidency of the United States. (5 units)

**440. VOTING BEHAVIOR**

Factors related to voting behavior and other forms of political involvement, including analysis and interpretation of electoral decisions. (5 units)

**450. POLITICAL SOCIALIZATION**

Application of political theory and research to the political education and socialization of children. Major attention devoted to the problems of children's political orientations, their sources and formation. (5 units)

**484. NATIONAL SECURITY POLICY**

Introduction to concepts and principles of national security policy through an examination of topics in international relations, foreign policy, arms control, strategic thought and alliance strategy. (5 units)

**500. INTERNATIONAL LAW**

Historical basis and present trends in the development of international law. (5 units)

**510. INTERNATIONAL ORGANIZATION**

History, structure and dynamics of the United Nations and other multi-national organizations. (5 units)

**530. STUDIES IN POLITICAL THEORY**

Concentrated study of one political theorist or one subject in political theory. May be repeated for credit as topics change. (5 units)

**535. SEMINAR IN CONSTITUTIONAL LAW**

Intensive study in one or more aspects of constitutional law. *Prerequisite: one of the following: Political Science 328, 410, 411, History 540 or consent of instructor.* (5 units)

**560. INTERGOVERNMENTAL RELATIONS**

Administrative and political dynamics of relationships among national, state and local units of government. (5 units)



## 378 / Political Science

### 575. INTERNSHIP IN POLITICAL SCIENCE

Supervised work and study in public and private organizations. May be repeated once for credit. Graded Credit/No Credit. *Prerequisites: consent of instructor and department.* (Credit to be arranged: 2 to 5 units)

### 590. SEMINAR IN INTERNATIONAL RELATIONS

Intensive study of some phase of foreign policy-making or international relations to be developed by instructor with class. May be repeated for credit, with consent of instructor. (5 units)

### 592. SEMINAR IN GOVERNMENT

An intensive study of some phase of government to be developed by instructor with class. May be repeated for credit, with the consent of instructor. (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in Political Science 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

### 597. SENIOR HONORS THESIS

In-depth research culminating in a written thesis. Written proposals will be invited from seniors with a 3.5 GPA in all political science courses. Enrollment is limited to those students whose proposals are approved by the Political Science Honors Thesis Committee. (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 600. ARMS CONTROL AND NATIONAL SECURITY POLICY

Examination of the theoretical literature on post World War II arms control concepts, doctrines and objectives in relation to national security policy. *Prerequisite: Political Science 484 or equivalent.* (5 units)

### 601. STRATEGIC SYSTEMS AND STRATEGIC THOUGHT

Evolution of strategic thought, policy, doctrine and force structure relative to national security objectives. *Prerequisite: Political Science 484 or equivalent.* (5 units)

### 602. ALLIANCE STRATEGY AND REGIONAL SYSTEMS

Key defense-related political and military problems confronting NATO, the Warsaw Pact and other international mutual security systems. *Prerequisite: Political Science 484 or equivalent.* (5 units)

### 604. SEMINAR IN INTERNATIONAL LAW

Survey of the literature and a study of the Law of the Sea, Aerospace Law, and International Regulation of the use of Force. (5 units)

### 605. TOPICS IN STRATEGY

Intensive study of a specific phase or area of defense strategy developed by the instructor. May be repeated once for credit as topics change, with consent of student's advisor. (5 units)

### 627. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## PSYCHOLOGY

*Department of Psychology*  
*Physical Sciences Building, Room 219*  
 887-7226

The general objectives of the psychology program are to present the scientific and professional aspects of psychology to the undergraduate majoring in this field and to provide service courses as electives for students throughout the university. The department also offers course work leading to the Master of Arts or the Master of Science in Psychology. Students intending to enroll in these programs or another graduate school will find that the undergraduate program provides an excellent base for entry into graduate training. Other majors may plan a paraprofessional career in counseling or related fields where graduate training may not be necessary.

Courses offered by the department range from the basic scientific courses such as experimental psychology, learning and perception to such applied courses as counseling and behavior modification. Laboratory and training facilities complement a wide variety of courses.

### Requirements for the Bachelor's Degree

*Requirements for the major:* Psychology 100, 311; one course chosen from 431, 433, 434, 435, 436, 437; either Psychology 210 or Social Sciences 215; and four courses as follows:

- (a) Fields of Psychology (choose two): Psychology 201, 382, 385, 390;
- (b) Basic Processes (choose one): Psychology 360, 362, 363, 364;
- (c) Applications (choose one): Psychology 315, 351, 377, 387, 575.

An additional 15 units in upper-division psychology electives are required. (Psychology 201 may be used to satisfy five of these additional 15 units but does not satisfy the University's upper-division unit requirement.)

Students intending to apply to doctoral programs in psychology are encouraged to take Psychology 498 and 595. Students interested in other educational and career goals have the opportunity to either diversify or concentrate their studies according to individualized plans developed in consultation with a departmental advisor.

*Requirements for the minor in psychology:* Psychology 100, plus one selection from each of three core requirements:

- (a) Fields of Psychology: Psychology 201, 382, 385, 390;
- (b) Basic Processes: Psychology 360, 362, 363, 364;
- (c) Applications: Psychology 315, 351, 377, 387, 575.

An additional 10 upper-division psychology units are required. (Psychology 201 may be used to satisfy five of these additional 10 units but does not satisfy the University's upper-division unit requirement.)

*Departmental Honors.* Students majoring in psychology are eligible to receive honors in psychology at graduation if the following conditions are met: (1) at least one-half of the course work required by the major is completed at this University, (2) at least a 3.5 grade-point average in the major, (3) an overall grade-point average of 3.25 or better, and (4) completion of Psychology 597 and 598A and B (the three-quarter Honors Program), with a grade of B or better each quarter. Students interested in this recognition must file a formal application for enrollment in the Honors Program at the end of their junior year.

## MASTER OF ARTS IN PSYCHOLOGY

The objective of the M.A. in Psychology is to provide a program of study with courses selected from a variety of basic areas in psychology. Students will select one of the following three concentrations as their area of specialization:

1. General Psychology concentration provides a broad background suitable for entry into doctoral programs and employment requiring an M.A. in psychology;
2. Industrial-Organizational Psychology concentration is designed primarily for individuals interested in obtaining positions in public and private sectors;
3. Life-Span Developmental Psychology concentration provides a background suitable for careers dealing with children, families, or older adults.

Although each of these concentrations differs in emphasis, all three will prepare students for doctoral programs and career objectives such as teaching in a community college.

## Admission to the M.A. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A baccalaureate degree with a major in psychology; or with any other undergraduate major, (i) score at least at the 50th percentile on the GRE advanced test in psychology or (ii) satisfy the graduate admissions committee of the Department of Psychology that a satisfactory course of study has been pursued in preparation for graduate study in psychology;
2. A cumulative undergraduate grade-point average of at least 2.5 overall and at least 3.0 in the major;
3. A brief statement describing preparation for graduate study, the goals of graduate study and professional aspirations, to be submitted to the department;
4. Three letters of recommendation, with at least two from former professors. Letters should come directly from the writers or be included in a placement file. (It is the applicant's responsibility to determine if letters have been received.)
5. For the General Psychology concentration the following prerequisites: Psychology 100, 210 and 311 or equivalent. For the Industrial-Organizational Psychology concentration the following prerequisites: Psychology 100, 311, 377; Psychology 210 or Management Science 210; Psychology 355 or Management 455; and Psychology 302 or Management 302. A course in microeconomics is recommended. For the Life-Span Developmental Psychology concentration the following prerequisites: Psychology 100, 210, 311 and a course in developmental psychology or equivalent.

Students who meet the general requirements of the University for admission to graduate study, but who do not meet the Psychology Department's specific requirements for admission to classified status or who wish to take course work prior to spring quarter consideration of their application for classified status, may be admitted to the University in the unclassified postbaccalaureate status. Unclassified postbaccalaureate students may enroll, when space is available, in selected graduate courses.

### **Advancement to Candidacy**

To be formally advanced to candidacy, a student must have:

1. Achieved classified status;
2. Secured a graduate advisor to supervise the course of study;
3. Completed, with the approval of the student's advisor, at least 10 quarter units of graduate course work at this University, and achieved a minimum grade-point average of 3.0 in these courses;
4. Filed an approved graduate program which must have the approval of the student's advisor, the department chair or chair of the graduate program committee and the associate dean of graduate programs.
5. Satisfactory completion of the upper division writing requirement.

### **Requirements for Graduation**

1. A minimum of 55 quarter units of approved graduate-level work, with 32 completed in residence at this University;
2. A grade-point average of at least 3.0 in all courses taken to satisfy the Master of Arts degree requirements and grades of "C" (2.0) or better in all courses in the program;
3. All M.A. students will complete Psychology 569, 570, 571 and will complete a culminating experience to consist of either the completion and defense of an original master's thesis (a two-course sequence, Psychology 611 and 699)

or

completion of an externship (Psychology 689A and 689B). The selected option must be met to the satisfaction and approval of the student's graduate committee;

4. Satisfaction of the requirements of one of the following areas of concentration:
  - A. General Psychology Concentration: Psychology 650, 652, 654, 656, 658 and 5 units of electives chosen from 500 level or above psychology courses excluding 612.
  - B. Industrial-Organizational Psychology Concentration: Psychology 660, 662, Management 601; 10 units selected from Management 532, 551, 641, 642, 643, 644; and 5 units selected from Psychology 650, 652, 654, 656, 658.
  - C. Life-Span Developmental Psychology Concentration: Psychology 582, 654, 664; 10 units selected from 650, 652, 656, 658; and 5 elective units selected in consultation with an advisor.
5. Any additional general requirements not cited above and listed on Page 94.

Classified graduate students in the M.A. program must complete their degree requirements within five years of admission to that program. Students in classified status who fail to complete at least one course in the Psychology M.A. program over a period of two successive quarters will automatically be declassified.

### **MASTER OF SCIENCE IN PSYCHOLOGY**

The area of concentration for the M.S. degree program is clinical/counseling psychology.

The principal objective of this program is to provide students with practical skills in counseling, through supervised training and experience, and an understanding of relevant subject matter knowledge and research methodology. The program culminates with a thesis or project or comprehensive examination and an internship experience.

#### **Admission to the M.S. Program**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A minimum cumulative undergraduate grade-point average of 2.5;
2. A minimum cumulative undergraduate grade-point average in the major of 3.0;
3. A baccalaureate degree in psychology  
*or*  
one of the following two:
  - a. A baccalaureate degree in a major other than psychology and score at or above the 50th percentile on the Graduate Record Exam (advanced test in psychology);
  - b. A baccalaureate degree in a major other than psychology, including a course of study judged, by the Psychology Department graduate admissions committee, to be satisfactory preparation for graduate study in psychology.
4. Submission to the department graduate admissions committee of a brief statement (one or two typewritten pages) of the student's preparation for graduate study, goals in a graduate training program and professional aspirations following receipt of the master's degree;
5. Submission of three letters of recommendation from people who are in a position to make relevant comments on the student's likely success in a graduate psychology program. At least two of these letters should be from former professors who are familiar with the student's scholarly activities.

Students who meet the general requirements of the University for admission to graduate study but who do not meet the Psychology Department's specific requirements for admission to classified status or who wish to take course work prior to spring quarter consideration of their application for classified status, may be admitted to the University in the unclassified postbaccalaureate status. Unclassified postbaccalaureate students may enroll, when space is available, in selected graduate courses.

### Advancement to Candidacy

In order to be advanced to candidacy, a student must have:

1. Achieved classified status;
2. Secured a graduate advisor to supervise the course of study;
3. Completed, with the approval of the student's advisor, at least 15 quarter units of graduate course work at this University, and achieved a minimum grade-point average of 3.0 in those courses;
4. Filed an approved graduate program which must have the approval of the student's advisor, the department chair or chair of the graduate program committee and the associate dean of graduate programs.

### Requirements for Graduation

1. Completed at least 81 quarter units of course work in an approved graduate program with a grade-point average of at least 3.0 and grades of "C" (2.0) or better in all courses in the program;
2. Completed the following courses: Psychology 569 or 570, 583, 665, 666, 671, 672, 673, 682, 687 ABC, 697 ABC, and 5 units of 611 or 612 depending on the culminating option selected (see Item 3 below). In addition, 10 or 15 units of elective course work at the 500 or 600 level is required depending on the culminating option selected. This requirement may not be met by independent study courses; (*Note: up to 10 units of Psychology 697A/B/C may be waived for appropriate work experience.*)
3. Completed and defended an original thesis (Psychology 699); or completed a project (Psychology 620) to the satisfaction of the student's graduate committee; or passed a comprehensive examination. Students selecting the thesis or project option take 5 units of Psychology 611 in preparation for the thesis or project and 10 units of elective course work. Students selecting the examination option take 5 units of Psychology 612 in preparation for the examination and 15 units of elective course work. Elective course work is chosen from 500 or 600-level courses, excluding Psychology 575, 595, 611 and 612.
4. Received the approval of the student's graduate committee;
5. Any additional general requirements not cited above and listed on Page 94.

The comprehensive examination is a five-hour exam designed to be integrative in nature. The examination is offered during the first half of the fall and spring quarters. Students who do not receive a passing grade may elect to: (a) repeat the exam, one additional time only, or (b) complete Psychology 620 or 699. Complete details regarding the examination option are available from the Psychology Department.

Classified graduate students in the M.S. program must complete their degree requirements within five years of admission to that program. Students in classified status who fail to complete at least one course in the Psychology M.S. program over a period of two successive quarters will automatically be declassified.

#### 100. INTRODUCTION TO PSYCHOLOGY

A survey of the field of modern psychology. (5 units)

## **384 / Psychology**

### **110. PERSONAL AND SOCIAL ADJUSTMENT**

Application of psychological principles to predictable challenges and problems over the life span. Explores opportunities for adjustment and growth in a variety of circumstances, such as family and college life. May not be counted toward fulfillment of requirements in the psychology major. (5 units)

### **120. CAREER DEVELOPMENT**

Examination of the world of work, career orientations over the life-span, and individual self-assessment including exploration of career aspirations and goals. (5 units)

### **201. DEVELOPMENTAL PSYCHOLOGY**

Introduction to the psychological development of the person from the prenatal period through old age. *Prerequisite: Psychology 100.* (5 units)

### **210. PSYCHOLOGICAL STATISTICS**

Introduction to statistical reasoning and application of basic statistical procedures in psychology. Includes both descriptive and inferential statistics with emphasis on parametric techniques. Credit may not be received for more than one of the following courses: Management Science 210, Psychology 210, or Social Sciences 215. Lecture and three hours of laboratory. (5 units)

### **302. MANAGEMENT AND ORGANIZATIONAL BEHAVIOR**

Introduction to management as it affects operations and the behavior of people in relation to the functional fields of administration. Selected behavioral concepts analyzed with respect to applications in management. (Also offered as Management 302. Students may not receive credit for both.) (5 units)

### **303. PARENTING AND FAMILY RELATIONS**

Effects of parenting and intra-family relations on child and life-span psychological development. *Prerequisites: Psychology 100 and 201 or equivalent.* (5 units)

### **311. INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY**

Design and execution of psychological research. Lecture and laboratory. *Prerequisites: Psychology 100; and one of the following: Psychology 210 or Social Sciences 215.* (6 units)

### **315. COMMUNICATION PROCESSES**

Introduction to the nature of the helping process with emphasis on strategies of behavior change, interpersonal communication and basic helping skills. Lecture and laboratory. *Prerequisite: Psychology 100.* (5 units)

### **318. HEALTH PSYCHOLOGY**

Examination of psychological aspects of health related behaviors with emphasis on the effects of interpersonal and social psychological factors on physical health and effective medical care. *Prerequisite: Psychology 100.* (5 units)

### **320. PSYCHOLOGY OF MIDDLE CHILDHOOD**

Theories and their applications to physical, cognitive, social and emotional development during the middle childhood years. A field based component will be required. *Prerequisite or Corequisite: Psychology 100.* (5 units)

### **325. PSYCHOLOGY OF INFANCY AND EARLY CHILDHOOD**

Prenatal, neonatal and infant and early childhood development. *Prerequisites: Psychology 100 and 201.* (5 units)

### **328. PSYCHOLOGY OF ADOLESCENT DEVELOPMENT**

Theory and empirical literature concerning the physical, cognitive, social and emotional changes from puberty to adulthood. A field based component will be required. *Prerequisite or Corequisite: Psychology 100.* (5 units)

**329. PSYCHOLOGY OF ADULTHOOD AND AGING**

Psychological processes of development during the adult years. *Prerequisites: Psychology 100 and 201, or consent of instructor.* (5 units)

**331. THE PSYCHOLOGY OF WOMEN**

A critical study of theory and data on the psychological development of females; their attitudes, behaviors, psychopathologies, abilities and self-images. *Prerequisite: Psychology 100.* (5 units)

**332. BIOFEEDBACK**

A survey of the biofeedback literature with emphasis on research findings, clinical applications and theory underlying voluntary control of brainwaves, muscle activity, heart rate and other bodily responses. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

**333. DRUGS AND BEHAVIOR**

Analysis of drugs from psychological, behavioral and physiological viewpoints. Topics include drug classification, altered states of consciousness, addiction, chemical nature and treatment of mental illness. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

**337. PSYCHOLOGICAL DEVELOPMENT OF THE BLACK AMERICAN**

Cognitive and affective development of the individual Black American. Includes survey of research which relates the total psychological functioning of the Black person to culturally distinct developmental patterns. (5 units)

**347. PSYCHOLOGICAL DEVELOPMENT OF THE CHICANO**

Diverse psychological forces that affect the development of the individual Chicano. Includes survey of research which identifies specific aspects of psychological functioning, especially as psychological development relates to cultural differences. (5 units)

**349. THE PSYCHOLOGY OF GAYS AND LESBIANS**

Analysis of theories and research on homosexuality, social reactions to homosexuality, and gay and lesbian cultural adaptations. (5 units)

**351. BEHAVIOR MODIFICATION: PRINCIPLES AND APPLICATIONS**

Analysis of the theory, techniques and ethics of behavior modification. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

**355. INDUSTRIAL PSYCHOLOGY**

Practices of modern industrial and personnel psychology. Includes selection, placement, training, motivation, job analysis, evaluation and human factors. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

**358. COGNITIVE DEVELOPMENT**

Survey of the major theories, issues and research in the development of perceptual and cognitive capacities from childhood through adulthood. *Prerequisites: Psychology 100 and 201.* (5 units)

**360. COGNITIVE PSYCHOLOGY**

Research and theories concerning human information processing; topics include sensory processes, attention, memory, language and other higher mental processes. *Prerequisite: Psychology 100.* (5 units)

**362. LEARNING AND MOTIVATION**

Survey of research and major theories in animal and human learning and motivation. Applications of learning and motivational principles. *Prerequisite: Psychology 100.* (5 units)

**363. BIOLOGICAL PSYCHOLOGY**

Overview of the biological basis of behavior with emphasis on the relationship between brain function and thought, emotion, perception, language, learning, memory and motivation. *Prerequisite: Psychology 100.* (5 units)



## 386 / Psychology

### 364. PERCEPTION

Selected topics in the field of perceptual processes. Includes review of contemporary theories and research. Class demonstrations and mini-projects. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

### 366. COMPUTER APPLICATIONS IN PSYCHOLOGY

A survey of the uses of computers in psychology. Topics include the application of computers in psychological research, statistical data analysis, psychological assessment, how behavior can be simulated by computers, and how humans interact with computers. Specific statistical programs relevant to research will be presented. Lecture and laboratory. *Prerequisites: Psychology 100 and Psychology 210 or Management Science 210 or Social Sciences 215, or consent of instructor.* (5 units)

### 370. TOPICS IN PSYCHOLOGY

Selected psychology topics with specific focus within relatively narrow content areas. May be repeated for credit as subject matter changes. *Prerequisite: Psychology 100.* (2½ units)

### 375. SEMINAR IN PSYCHOLOGY

Selected topics which encompass areas of current theoretical and/or research interest in psychology. May be repeated for credit as subject matter changes. *Prerequisite: Psychology 100.* (5 units)

### 377. TESTS AND MEASUREMENTS

Administration of psychological tests and scales; interpretation and use of the data which they yield. *Prerequisites: Psychology 100 and one of the following: Psychology 210 or Social Sciences 215.* (5 units)

### 382. PSYCHOLOGY OF SOCIAL BEHAVIOR

Major concepts, issues and psychological research regarding social influence on individual behavior. *Prerequisite: Psychology 100.* (5 units)

### 384. PERSONALITY AND SOCIAL DEVELOPMENT

Development of personality, emotions and social behavior from childhood through adulthood. *Prerequisites: Psychology 100 and 201 or equivalents.* (5 units)

### 385. PERSONALITY

Survey of the major theories of personality. *Prerequisite: Psychology 100 or consent of instructor.* (5 units)

### 387. COMMUNITY PSYCHOLOGY

Comprehensive study of the discipline of community psychology which emphasizes the relationship of community resources to individual mental health needs. *Prerequisite: Psychology 100.* (5 units)

### 390. ABNORMAL PSYCHOLOGY

An introduction to psychopathology, emphasizing the major interpretations and treatments of emotional and behavioral disorders. *Prerequisite: Psychology 100.* (5 units)

### 391. PSYCHOPATHOLOGY OF CHILDHOOD

Psychological and emotional disorders of children with special emphasis on diagnostic and clinical treatment. *Prerequisites: Psychology 100 and 201.* (5 units)

### 395. PSYCHOLOGY OF CONSCIOUSNESS

Human consciousness from the perspectives of the experiential, behavioral and physiological psychology literatures. Includes survey of research and theory on topics such as waking consciousness, dreams, meditation and altered states of consciousness. *Prerequisite: Psychology 100.* (5 units)

### 411. PSYCHOLOGY OF MASS MEDIA COMMUNICATION

Influence of mass media (radio, movies, television) on the individual. Developmental aspects will be stressed along with attention to applications in everyday life. Communications research will be highlighted. *Prerequisite: Psychology 311 or Sociology 308.* (5 units)

**431. EXPERIMENTAL PSYCHOLOGY: DEVELOPMENTAL**

Selected research areas in the fields of child and life-span developmental psychology. Includes review of current literature and experimental techniques in developmental research. Lecture and laboratory. *Prerequisites: Psychology 201; Psychology 311 or consent of instructor.* (6 units)

**433. EXPERIMENTAL PSYCHOLOGY: PHYSIOLOGICAL**

Introduction to the neural and endocrine processes underlying brain function and behavior. Lecture and laboratory. *Prerequisites: Psychology 311; Psychology 363 or consent of instructor.* (6 units)

**434. EXPERIMENTAL PSYCHOLOGY: SOCIAL**

Methods, theories and empirical results of experimental social psychology in selected areas such as group dynamics, social perception, communication and attitudes. Lecture and laboratory. *Prerequisites: Psychology 382; Psychology 311.* (6 units)

**435. EXPERIMENTAL PSYCHOLOGY: PERSONALITY**

Empirical study of personality theories and the relationship of personality to behavior. Lecture and laboratory. *Prerequisites: Psychology 311, 377 and 385.* (6 units)

**436. EXPERIMENTAL PSYCHOLOGY: LEARNING AND MOTIVATION**

Selected theories and research in areas of learning and motivation. Includes literature review and experimental analysis. Lecture and laboratory. *Prerequisites: Psychology 311 and 362.* (6 units)

**437. EXPERIMENTAL PSYCHOLOGY: COGNITION AND PERCEPTION**

Empirical study of human information processing, memory, thought and perceptual processes. Lecture and laboratory. *Prerequisites: Psychology 311 and either Psychology 360 or 364.* (6 units)

**490. COUNSELING PSYCHOLOGY**

Basic theories and procedures of psychological counseling. *Prerequisites: Psychology 315 and 385.* (5 units)

**498. HISTORY AND SYSTEMS OF PSYCHOLOGY**

A senior-level course intended to provide students with a historical framework for integrating basic orientations in contemporary psychology. *Prerequisites: Psychology 311 and senior standing.* (5 units)

**569. ADVANCED METHODS IN PSYCHOLOGICAL RESEARCH**

Those aspects of philosophy of science and methods of inquiry as applied to procedures for obtaining and evaluating data as well as issues in experimental design. *Prerequisites: Psychology 210 or Social Sciences 215 and Psychology 311 or consent of instructor.* (5 units)

**570. ADVANCED PSYCHOLOGICAL STATISTICS**

Review of concepts of statistical inference. Applications of statistical techniques to the design and interpretation of experimental research. Lecture and three hours of laboratory. *Prerequisite: one of the following: Psychology 210 or Social Sciences 215, or consent of instructor.* (5 units)

**571. APPLIED PROBLEM ANALYSIS**

Review and use of methodological and statistical strategies in the solution of applied research problems. Statistical computer packages will be used for data analysis. *Prerequisites: Psychology 569 and Psychology 570 or equivalent.* (5 units)

**575. INTERNSHIP IN PSYCHOLOGY**

Supervised work and study in private or public organizations. May be repeated once for credit. (Only five units of Psychology 575 may be applied to upper-division elective requirements in the psychology major.) Graded Credit/No Credit. *Prerequisites: consent of instructor and department.* (5 units)

**578. ADVANCED TOPICS IN PSYCHOLOGY**

Selected advanced psychology topics with specific focus within relatively narrow content areas. May be repeated for credit as subject matter changes. *Prerequisites: upper-division or graduate standing and consent of instructor.* (2½ units)

## 388 / Psychology

### 580. ADVANCED SEMINAR IN PSYCHOLOGY

Selected advanced topics which encompass areas of current theoretical and/or research interest in psychology. May be repeated for credit as subject matter changes. *Prerequisites: upper-division or graduate standing and consent of instructor.* (5 units)

### 582. ADVANCED SEMINAR IN DEVELOPMENTAL PSYCHOLOGY

Selected current issues and advanced topics of theoretical, research or applied interest in developmental psychology. May be repeated for credit as subject matter changes. *Prerequisite: upper-division or graduate standing.* (5 units)

### 583. THEORIES OF COUNSELING AND PSYCHOTHERAPY

Comparative analysis of major theories related to current practice of counseling and psychotherapy. *Prerequisite: classified standing in Psychology M.S. or M.A. degree programs or consent of instructor.* (5 units)

### 591. HUMAN SEXUALITY

Study of human sexuality with emphasis on both healthy sexuality and sexual dysfunction. *Prerequisite: classified standing in the Psychology M.S. or M.A. programs or consent of instructor.* (2½ units)

### 595. INDEPENDENT STUDY

Special topics involving literature and/or experimental effort. A total of 10 units of Psychology 595 may be applied toward graduation, of which a maximum of five units can be applied toward the upper-division requirements in the psychology major. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 to 5 units)

### 597. HONORS SEMINAR

Provides an opportunity for students to develop an independent project under faculty supervision. Students will meet as a class to discuss their projects, as well as various advanced topics. Enrollment is limited to students whose formal application for departmental honors is approved. *Prerequisites: Psychology 311 and consent of department.* (5 units)

### 598. HONORS PROJECT

Provides an opportunity for students to conduct an independent project under faculty supervision. Enrollment is limited to students whose formal application for departmental honors is approved. May not be used to satisfy the requirements of the psychology major.

A. *Prerequisites: Psychology 597 and consent of department.* (2½ units)

B. *Prerequisites: Psychology 598A and consent of department.* (2½ units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

### 611. ADVANCED INDEPENDENT STUDY

Advanced research on a specific topic selected by the student with the approval of the student's committee. May be repeated up to two times for a maximum of 15 units credit with approval of the student's committee and the department chair. Only five units are required for the master's degree. *Prerequisites: Psychology 569 or Psychology 570; advancement to candidacy.* (Credit to be arranged: 2 to 5 units)

### 612. DIRECTED READINGS

Special topics involving supervised readings under the direction of a faculty member. *Prerequisites: graduate standing, departmental approval and consent of instructor.* (Credit to be arranged: 2 to 5 units)

**620. MASTER'S DEGREE PROJECT**

Supervised field work, study and/or research contracted between the student and his/her committee to fulfill the M.S. degree requirement of a culminating experience for the student. *Prerequisites: classified status in the M.S. in Psychology program and satisfactory completion of Psychology 569 or 570 and Psychology 611.* (5 units)

**627. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

**630. TEACHING OF PSYCHOLOGY**

Instructional methods for teaching of psychology at the college level. *Prerequisite: classified graduate status in psychology.* (2½ units)

**650. ADVANCED COGNITIVE PSYCHOLOGY**

Research and theories in the psychology of thinking, knowing and remembering. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**652. ADVANCED LEARNING AND MOTIVATION**

Major theories and research in learning and motivation with emphasis on current issues. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**654. ADVANCED LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY**

Examination of the developmental processes, theories, issues and research in life-span developmental psychology. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**656. ADVANCED PHYSIOLOGICAL PSYCHOLOGY**

Study of biological bases of behavior with emphasis on recent research. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**658. ADVANCED PERSONALITY AND SOCIAL PSYCHOLOGY**

Major theories, methods and empirical findings in personality and social psychology. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**660. ADVANCED INDUSTRIAL PSYCHOLOGY**

Critical evaluation of current research, advanced methods and professional problems in industrial psychology. Major topics include selection and placement, training, job analysis, job evaluation and performance appraisal. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**662. MOTIVATION AND MORALE**

Examination of motivation theories and research, issues and research in job satisfaction and quality of work life. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**664. APPLIED LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY**

Conceptual, methodological and policy related issues in the application of developmental psychology to applied settings. *Prerequisite: classified graduate standing in Psychology M.A. or M.S. degree programs or consent of instructor.* (5 units)

**665. PSYCHOPATHOLOGY**

Major types of human psychopathology, including descriptive symptomatology, etiological factors and treatment considerations. *Prerequisite: classified standing in Psychology M.S. program, or Psychology 390 and classified standing in Psychology M.A. program, or Psychology 390 and consent of instructor.* (5 units)

## 390 / Psychology

### 666. FAMILY PROCESSES

Normal and dysfunctional family processes, including analysis of family systems, family communication and strategies for therapeutic intervention. *Prerequisite: classified standing in Psychology M.S. or M.A. degree programs or consent of instructor.* (5 units)

### 671. COUNSELING PRACTICUM I

Training in development of basic counseling skills. Lecture and laboratory. *Prerequisites: classified status in the M.S. in Psychology program and concurrent enrollment in Psychology 687A.* (5 units)

### 672. COUNSELING PRACTICUM II

Training in counseling use and application of behavior modification skills. Lecture and laboratory. *Prerequisites: grade of no less than B in Psychology 671 and concurrent enrollment in Psychology 687B.* (5 units)

### 673. COUNSELING PRACTICUM III

Training in advanced counseling skills. Lecture and laboratory. *Prerequisites: grade of no less than B in Psychology 672 and concurrent enrollment in Psychology 687C.* (5 units)

### 682. ADULT ASSESSMENT

Training in methods of intellectual, vocational and personality assessment with adults. *Prerequisite: classified status in M.S. in Psychology program.* (5 units)

### 683. CHILD ASSESSMENT

Training in methods of intellectual and personality assessment with children. *Prerequisite: classified status in M.S. in Psychology program or consent of instructor.* (5 units)

### 684. TOPICS IN COUNSELING PSYCHOLOGY

Selected topics within counseling psychology. May be repeated for credit as topic changes. *Prerequisite: classified status in M.S. Psychology program or consent of instructor.* (5 units)

### 687. INDEPENDENT CONSULTATION IN COUNSELING SKILLS

Individual consultation with staff concerning counseling skills development. Graded credit/no credit. *Corequisite: concurrent enrollment in Psychology 671, 672 or 673.*

- A. (2 units)
- B. (2 units)
- C. (2 units)

### 689. EXTERNSHIP IN APPLIED PSYCHOLOGY

Supervised field work in a private or public setting for additional applied training and extension of skills developed in the graduate program. The externship requires approval and supervision by an externship committee and oral defense of a written summary which includes examination of the literature related to the externship. Students must complete Psychology 689A and Psychology 689B before credit can be granted for either. Psychology 689A must be taken before Psychology 689B. *Prerequisites: advancement to candidacy and Psychology 569.*

- A. (5 units)
- B. (5 units)

### 697. INTERNSHIP IN COUNSELING PSYCHOLOGY

Supervised counseling fieldwork in private or public mental health agencies. Designed to be taken three times (year long) for maximum 15 units of credit. Graded credit/no credit. *Prerequisites: classified status in the M.S. in Psychology program; Psychology 671, 672, 687A, 687B, 687C; and a grade of A or B in Psychology 673.*

- A. (5 units)
- B. (5 units)
- C. (5 units)

**698. EXTENDED ENROLLMENT**

Independent study leading to completion of requirements (other than course work) for the master's degree. Students enrolled in this course have full use of University facilities. *Prerequisites: advancement to candidacy and consent of department.* (0 units)

**699. THESIS**

*Prerequisites: Psychology 569 and/or 570; Psychology 611; advancement to candidacy.* (5 units)

## PUBLIC ADMINISTRATION

*Department of Public Administration  
Administration Building, Room 138  
887-7704*

The courses listed below are offered in support of the bachelors, masters, and certificate programs offered by the School of Business and Public Administration. A Bachelor of Arts, Master of Public Administration and certificate can be earned with a concentration in Public Administration. The details of these programs are listed under Administration (Page 134) and under Certificate Programs (Page 103). Further information about these programs is available from the Department of Public Administration.

### **307. PUBLIC RELATIONS IN THE PUBLIC SECTOR**

Public relations as an inherent aspect of management in the public sector. Problems and techniques of administration of programs to manage and improve public relations. (5 units)

### **380. INTRODUCTION TO PUBLIC ADMINISTRATION**

An introduction to the purposes, methods and characteristics of public management, including organization of public services, roles and relationships of public administrators, accountability and the achievement of public goals. (Also offered as Political Science 380. Students may not receive credit for both.) (5 units)

### **480. ORGANIZATIONAL PROBLEMS IN PUBLIC ADMINISTRATION**

Administrative and management problems as they exist within public organizations and agencies. (5 units)

### **514. MANAGEMENT OF PRIVATE NONPROFIT ORGANIZATIONS**

Analyzes the specific problems of management in private nonprofit organizations, including planning, personnel, financial and policy issues. (5 units)

### **521. PRINCIPLES OF PLANNING**

Introduction to local and regional community planning; includes methods of adoption and interorganizational relationships. (5 units)

### **557. PUBLIC SECTOR LABOR RELATIONS**

Analyzes issues created by collective bargaining and unionism in public sectors. Examples: selection of bargaining agents, bargaining scope and obligation, impasse resolution and grievance procedure. (5 units)

### **562. PUBLIC PERSONNEL ADMINISTRATION**

Definition, description and evaluation of government personnel systems; classification, compensation, recruitment, examination, training, working conditions, incentives, performance ratings, public employee organizations and organizational development in the public service. *Prerequisite: Management 302 or Psychology 302.* (5 units)

**563. GOVERNMENTAL BUDGETING**

Role of the budgetary process in government management, the public sector environment of budgeting, budget formulation and administration. (5 units)

**564. LOCAL PUBLIC ADMINISTRATION**

Administrative characteristics and problems of public management in the urban area, including city, county, school and special district organization and functions. (5 units)

**568. ACCOUNTING FOR GOVERNMENT AND NOT-FOR-PROFIT ORGANIZATIONS**

Covers principles and practices of government fund accounting. Topics include governmental accounting concepts, types and structure of funds and accounts, application of generally accepted accounting principles to government and not-for-profit entities, presentation and uses of financial statements. *Prerequisite: Accounting 311.* (5 units)

**575. INTERNSHIP IN PUBLIC ADMINISTRATION**

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and school.* (5 units)

**590. SEMINAR IN PUBLIC ADMINISTRATION**

An intensive study of some phase of public administration to be developed by the instructor. May be repeated for credit as topics change. (5 units)

**595. INDEPENDENT STUDY**

Special topics involving library and/or field research. A total of 10 units in any School of Administration 595 may be applied toward graduation. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and approval by the department of a written project/proposal submitted to the appropriate department in the School of Business and Public Administration on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2 or 5 units.)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only.*

**611. PUBLIC ADMINISTRATION THEORY AND PRACTICE**

A critical analysis of major theories of public administration and their application, including development of the discipline, evolution of institutional forms, concepts of decision making and role of public administration in society. (5 units)

**612. PRODUCTIVITY MEASUREMENT IN THE PUBLIC SECTOR**

Analysis of effective and efficient mobilization of agency resources. Includes examination of the environment, techniques, variables and perspectives in applying productivity measurements, particularly at the local level. (5 units)

**615. PUBLIC FINANCIAL MANAGEMENT**

Management of financial resources in public organizations with emphasis on local government. Topics include evaluation and monitoring of financial condition and trends, fiscal policy analysis, revenue and expenditure forecasting, capital planning and financing, cash flow management, debt administration, cost allocation and integrated financial management systems. (5 units)

**616. COMPARATIVE PUBLIC ADMINISTRATION**

Cross-national comparison of administrative systems, structures, processes and practices of developed and third world countries. (5 units)



## 394 / Public Administration

### 617. MANAGEMENT OF LOCAL ECONOMIC DEVELOPMENT

An introduction to the forms, processes and effects of economic development. Topics include: the dynamics of urban change and revitalization; the planning and financing of community economic development programs and projects; the role of public, neighborhood, advocacy and not-for-profit organizations, and social and environmental impacts of economic change. (5 units)

### 627. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the degree program. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

### 671. DEFENSE BUDGETING AND MANAGEMENT

Resource allocation and management in defense agencies. Topics include the defense planning and budgeting process; analytical tools for costing defense programs; administration of procurement; contingency and force planning; modernization, readiness and sustainability; and options in the allocation of defense resources. (5 units)

### 672. ADMINISTRATIVE REGULATION

Discretionary authority of regulatory agencies, the manner in which power is exercised by such agencies, and the administrative structure of the regulatory process. (5 units)

### 680. PUBLIC POLICY ANALYSIS

An integrative course examining the analytical, behavioral and systems sciences approaches to public administrative systems with emphasis upon the development of evaluative skills in applied decision making. *Prerequisites: Public Administration 562, 563 and 611.* (5 units)

### 690. ADVANCED TOPICS IN PUBLIC ADMINISTRATION

Intensive study of an advanced topic in public administration. May be repeated for credit as topics change. (5 units)

### 695. GRADUATE RESEARCH PROJECT

Required field study in public administration, including both literary and empirical research. *Prerequisites: completion of, or concurrent enrollment in, all other courses for the Master of Public Administration; and consent of instructor and school.* (5 units)

## REHABILITATION COUNSELING

*School of Education*

*Pfau Library Building, Room 500 North  
887-7571*

The M.A. in Rehabilitation Counseling offered by the School of Education is designed to prepare students to work with disabled people in public and private rehabilitation agencies, hospitals, industry and related fields. The graduate program, a two-year generic course of study, will train students in rehabilitation counseling, vocational evaluation and job placement of disabled persons. Graduates of the program will be prepared to take the certified rehabilitation counselor examination.

Rehabilitation counseling is a new and dynamic field in the mental health and allied health professions. A rehabilitation counselor helps disabled persons achieve their optimal social, psychological and vocational potential. Whenever possible, the final goal of rehabilitation is job placement. The rehabilitation counselor works with people who have different disabilities. The handicaps may be physical, intellectual, emotional or sociocultural.

Students will be encouraged to develop areas of specialization by completing research of individual interest and field work experiences in specialization areas. The rehabilitation counseling program also will offer a bilingual rehabilitation counseling experience. The purpose for having a bilingual experience is that there is a demand in the rehabilitation profession for counselors to have the skills to speak and work with Hispanic clients. The mission of the bilingual rehabilitation counseling experience will be to educate students to be rehabilitation counselors who will be able to speak conversational Spanish with Hispanic clients, have an understanding of Hispanic culture and be aware of the special needs of disabled Hispanic persons.

### **Admission to the Program, Retention and Exit Requirements**

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

- a. A baccalaureate degree with a major preferably in education psychology, sociology, or a related social service field.
- b. A cumulative undergraduate grade-point average of 2.5 overall.
- c. A cumulative grade-point average of 3.0 in all previous graduate work.
- d. Completion of an interview with two faculty members to assess competence in interpersonal skills and aptitudes for the rehabilitation counseling profession.
- e. Participation in a continual evaluation process which will assess personality and character, professional ethics and aptitude, counseling skills, oral and written language usage and many-sided interests.

### **Advancement to Candidacy**

In order to be formally advanced to candidacy, a student must have:

1. Achieved classified graduate standing;
2. Satisfactorily completed Education 615;
3. Completed, with a GPA of 3.0, no more than 45 quarter units of course work;
4. Secured approval of candidacy from the School of Education;
5. Filed an approved graduate program for completion of the degree. This must be prepared in consultation with an advisor in the School of Education and approved by the School and the associate dean for graduate programs.
6. Successful completion of a graduate writing requirement.

### **Requirements for Graduation**

1. A minimum of 85 quarter units of acceptable work, with 60 completed in residence at this University.
2. A minimum of 45 quarter units of credit taken after a student has been advanced to candidacy for the degree.
3. A grade-point average of 3.0 (B) in course work taken to satisfy the Master of Arts degree requirements and grades of C (2.0) or better in all courses in the program.
4. Successful completion of one of the following:
  - (1) Written comprehensive examination;
  - (2) Education 600, Master's Degree Project.

Students who elect to complete a project will register for Education 600; these units will be part of the required 85 units.

A satisfactory project is one which can be reported in the form of a paper and/or through other media. The project proposal and the project must be approved by the student's advisor and one other professor in the School of Education and submitted in an approved format. Further information is available from the School of Education regarding an approved format for the project proposal and project. Students who elect to complete a project are not required to take a comprehensive examination.

Students will be encouraged to present projects in a variety of media. The purpose of the project is for the student to communicate ideas gained in research, experimentation and creative endeavors; therefore, students should not feel bound to the traditional forms. All projects will be planned in consultation with the student's advisor.

The comprehensive examination is of an integrative nature and is designed to test the student's knowledge of the field of rehabilitation counseling reading rather than the subject matter of courses taken. The examination is offered once each quarter during the academic year. Students must enroll in the examination either through the regular registration process or through the Office of Extended Education in the Open University program. The student may enroll in the examination no earlier than the last quarter in which course work is taken. The student must complete a graduation check with the Office of Admissions and Records before permission to take the examination can be granted. Students who do not receive a passing score the second time must petition the associate dean of graduate programs to take it again. Approval to retake the examination may be, at any time, contingent upon completion of additional designated courses.

**Requirements for the Degree**

Requirements for the Master's Degree in Rehabilitation Counseling include 85 units of required and elective courses distributed as follows:

*Counselor education courses:* Education 531, 610, 652, 655, 656, 657A and 677.

*Rehabilitation counseling courses:* Education 605 (for a total of 5 units), 615, 616, 617, 618, 649, 667 and 679-I (for a total of 10 units).

*Students choosing the master's project:* Education 600.

*Students choosing the comprehensive examination:* five units chosen from the following: Education 504, 530, 546, 637, 650 and 693.

## SOCIAL SCIENCES

*School of Social and Behavioral Sciences  
Administration Building, Room 124  
887-7221*

The social sciences major has three tracks. Track A is designed for students who intend to use their social sciences major to waive the required state examination for the single subject teaching credential. Track B is designed for those students who wish to blend any three of the disciplines represented in the School of Social and Behavioral Sciences. Track C offers students an opportunity to combine a business curriculum with related coursework in economics, psychology and sociology. This track satisfies all prerequisites for the University's M.B.A. program.

### Requirements for the Bachelor's Degree

*Requirements for the major:*

#### *Track A*

#### *Lower-division core:*

1. Economics 104. Introduction to Economics  
or  
Economics 200. Principles of Microeconomics
2. Geography 100. Introduction to Human Geography  
or  
Social Sciences 165. Regions and Peoples of the World
3. Political Science 203. American Government
4. Five units chosen from the following:  
Psychology 100. Introduction to Psychology  
Anthropology 100. Introduction to Anthropology: Human Evolution  
Anthropology 102. Introduction to Anthropology: Culture and Society  
Sociology 100. The Study of Society  
Social Sciences 160. Contemporary Civilization: Values and Behavior
5. Social Sciences 142. World Civilizations II, The Civilizations of the East and West  
or  
Social Sciences 144. World Civilizations III, The Expansion of Europe
6. Social Sciences 146. American Civilization

#### *Upper-division core:*

**POLITICAL SCIENCE 410. AMERICAN CONSTITUTIONAL LAW**

**POLITICAL SCIENCE 411. THE BILL OF RIGHTS**

**HISTORY 370B. HISTORY OF CALIFORNIA: CALIFORNIA 1890-PRESENT**

Plus 15 units chosen from:

- HISTORY 334. BLACK HISTORY II: THE AMERICAN EXPERIENCE**
- HISTORY 350. THE AMERICAN COLONIES, 1607–1783**
- HISTORY 351. THE EVOLUTION OF AMERICAN DEMOCRACY, 1783–1840**
- HISTORY 354. CIVIL WAR AND RECONSTRUCTION**
- HISTORY 356. THE UNITED STATES, 1877–1917**
- HISTORY 357. THE UNITED STATES, 1917–1945**
- HISTORY 359. THE UNITED STATES SINCE 1945**
- HISTORY 391. CHICANO HISTORY**
- HISTORY 421. ECONOMIC HISTORY OF THE UNITED STATES**
- HISTORY 430. CHINA 1895–PRESENT**
- HISTORY 440. JAPAN 1868–PRESENT**
- HISTORY 513. WOMEN IN UNITED STATES HISTORY**
- HISTORY 540. CONSTITUTIONAL HISTORY OF THE UNITED STATES**
- HISTORY 556. FOREIGN RELATIONS OF THE UNITED STATES**
- HISTORY 560. HISTORY OF THE AMERICAN WEST**
- HISTORY 565. ETHNIC MINORITIES IN AMERICAN HISTORY**

Plus 15 units chosen from:

- HISTORY 300. EARLY MODERN EUROPE, THE RENAISSANCE TO 1815**
- HISTORY 301. MODERN EUROPE, 1815 TO THE PRESENT**
- HISTORY 322. THE CLASSICAL WORLD**
- HISTORY 331. BLACK HISTORY I: THE AFRICAN EXPERIENCE**
- HISTORY 380. HISTORY OF WORLD RELIGIONS**
- HISTORY 382. HISTORY OF THE MIDDLE EAST**
- HISTORY 390. HISTORY OF MEXICO**
- HISTORY 402. RENAISSANCE AND REFORMATION**
- HISTORY 403. THE AGE OF ABSOLUTISM AND ENLIGHTENMENT**
- HISTORY 408. THE DEVELOPMENT OF TWENTIETH CENTURY EUROPE, 1890–1945**
- HISTORY 469. COLONIAL LATIN AMERICA**
- HISTORY 470. MODERN LATIN AMERICA**
- HISTORY 500. TUDOR AND STUART ENGLAND**
- HISTORY 535. STUDIES IN EUROPEAN NATIONAL HISTORY**
- HISTORY 589. REVOLUTIONS IN HISTORY**

Plus 5 units chosen from:

- GEOGRAPHY 302. GEOGRAPHY OF CALIFORNIA**

## **400 / Social Sciences**

**GEOGRAPHY 309. AREA STUDY: SOVIET UNION**

**GEOGRAPHY 321. AREA STUDY: LATIN AMERICA**

**GEOGRAPHY 380. POPULATION GEOGRAPHY**

**GEOGRAPHY 420. GEOGRAPHY OF ECONOMIC ACTIVITY**

**GEOGRAPHY 440. URBAN GEOGRAPHY**

Plus 5 units chosen from:

**GEOGRAPHY 350. CONSERVATION AND NATURAL RESOURCES**

**GEOGRAPHY 360. CLIMATE AND VEGETATION**

**GEOGRAPHY 370. LANDFORMS, SOILS AND REMOTE SENSING**

**GEOGRAPHY 460. BIOGEOGRAPHY**

Plus 5 units chosen from:

**POLITICAL SCIENCE 320. THE LEGISLATIVE PROCESS**

**POLITICAL SCIENCE 326. POLITICAL PARTIES AND INTEREST GROUPS**

**POLITICAL SCIENCE 330. STATE AND LOCAL POLITICS**

**POLITICAL SCIENCE 428. FORMULATION OF PUBLIC POLICY**

**POLITICAL SCIENCE 431. THE AMERICAN PRESIDENCY**

Plus 15 units of upper-division course work, to be selected from a list of appropriate courses stipulated by the Departments of Psychology, Sociology, Criminal Justice, Anthropology and Economics. This list will be on file in the school office and in the various departmental offices in the school. All 15 units need not be taken from the offerings of a single department.

*Teaching Credential Program:* Students wishing to be recommended for a single subject teaching credential in social sciences must complete Track A of the major as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or the specific requirements of the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

### *Track B*

A minimum of 35/36 units (primary) in one of the following fields, plus 20 units each (secondary) in two others: anthropology, criminal justice, economics, geography, history, political science, psychology and sociology.

Of the 35/36 units comprising the primary field, no more than 15 units may be from the lower division. In each secondary field, no more than 10 units may be from the lower division.

Within the social sciences major, cross-listed courses cannot be counted both in a primary field and in a secondary field.

Those courses which will be required and allowed for use in this track, both in the primary and secondary fields, are listed below. It is the responsibility of both the student and the student's advisor to construct a program in line with these requirements. Once agreed to, the program is filed in the student's permanent folder in the Admissions Office but is subject to revision by mutual

consent. No more than 40 units may be selected from any one department. No more than one 15-unit special comprehensive examination may be applied to any field, either primary or secondary, and not more than two of these examinations may be used to meet the requirements of this major.

An ethnic studies secondary field may be obtained by taking Social Sciences 155 (Minority Groups in America) and 15 units of upper-division ethnic studies course work from within the School of Social and Behavioral Sciences. No course may be used in a secondary field which has been used in any other part of the social sciences major.

A special topics secondary field may be contracted with the dean of the School of Social and Behavioral Sciences. Possible topics that may be arranged under this option include, but are not restricted to, women's studies and Latin American studies. For more information concerning this option, contact the dean of the School of Social and Behavioral Sciences.

Departmental requirements for Track B of the social sciences major:

**ANTHROPOLOGY:**

*Primary field:* (35 units)

Anthropology 100, Anthropology 102; 15 units chosen from Anthropology 300–391; 10 units chosen from Anthropology 460–595.

*Secondary field:* (20 units)

Anthropology 100 or Anthropology 102; plus 10 units chosen from Anthropology 300–391 and five units chosen from Anthropology 460–595.

**CRIMINAL JUSTICE:**

*Primary field:* (36 units)

Criminal Justice 101, 102, 311; 15 units chosen from Criminal Justice 351, 357 or 357A, 358, 359; plus 5 units chosen from Criminal Justice 103, 301, 302, 450, 575.

*Secondary field:* (20 units)

Criminal Justice 101, 102; plus 10 units chosen from Criminal Justice 301, 302, 357 or 357A, 358, 359.

**ECONOMICS:**

*Primary field:* (35 units)

Economics 200, Economics 202, Economics 300, Economics 302, five units of 300–level economics course work and 10 units of 400- or 500-level economics course work.

*Secondary field:* (20 units)

Economics 200, Economics 202, 10 units of upper-division economics course work.

**GEOGRAPHY:**

*Primary field:* (35 units)

Geography 100, Geography 103, Geography 420, 20 units of upper-division geography course work. However, no more than 10 of these 20 units of upper-division elective course work can be an area study.



## 402 / Social Sciences

*Secondary field:* (20 units)

Geography 100 or Geography 103, Geography 420 and 10 units of upper-division geography course work. However, only five of these 10 units of upper-division elective course work can be an area study.

### **HISTORY:**

*Primary field:* (35 units)

History 200, History 201, History 300, History 301, or equivalents as described in the history major requirements, Page 288, and 15 units of upper-division history electives.

*Secondary field:* (20 units)

History 200 and History 201, or History 300 and 301, or equivalents as described in the history major requirements, Page 288, and 10 units of upper-division history electives.

### **POLITICAL SCIENCE:**

*Primary field:* (35 units)

Political Science 200, Political Science 203, and 25 units of upper-division course work with at least five units from each of the following fields: American government and politics, comparative politics, international relations, political theory.

*Secondary field:* (20 units)

Political Science 200 and five units of upper-division course work from each of three of the four fields listed above.

### **PSYCHOLOGY:**

*Primary field:* (35 units)

Psychology 100, 210; 10 units chosen from 201, 382, 385, 390; five units chosen from 360, 362, 363, 364; five units chosen from 315, 351, 377, 387, 575; and five units of upper-division psychology electives.

*Secondary field:* (20 units)

Psychology 100; five units chosen from 201, 382, 385, 390; five units chosen from 360, 362, 363, 364; five units chosen from 315, 351, 377, 387.

### **SOCIOLOGY:**

*Primary field:* (36 units)

Sociology 100 and Sociology 308; five units chosen from 310, 312, 360; 20 units of upper-division sociology electives.

*Secondary field:* (20 units)

Sociology 100; one of the three following: Sociology 310, Sociology 312 or Sociology 360; 10 units of upper-division sociology electives.

Departmental requirements for Track C of the social sciences major:

*Lower Division:* (25 units)

Economics 200, 202

Information Management 220

Psychology 100

Sociology 100

*Upper Division:* (50 units)

Economics 370, 500

Finance 503

Management 330

Management Science 504

Marketing 305

Sociology 368

Sociology 308

or

Criminal Justice 311

Sociology 360

or

Psychology 382

Plus one of the following: Management 302, Psychology 302, Psychology 355, Sociology 438.

*Highly Recommended: (5 to 10 units)*

Sociology 575

or

Psychology 575

or

Any School of Business and Public Administration 575 course

Many of the courses listed below are offered as part of the College's general education program. Some are offered in support of other degree programs.

**140. WORLD CIVILIZATIONS I, THE RISE OF CIVILIZATION**

Activities of man from the beginning through the rise and diffusion of civilization in the era of Middle Eastern dominance to about 500 B.C. (5 units)

**142. WORLD CIVILIZATIONS II, THE CIVILIZATIONS OF THE EAST AND WEST**

Major civilizations of the past, including the Graeco-Roman world, ancient India and China, the Byzantine and Arabic Empires, and Europe in the Middle Ages. (5 units)

**144. WORLD CIVILIZATIONS III, THE EXPANSION OF EUROPE**

Rise to dominance of the European states and their impact throughout the world, 1500 A.D. to the present. (5 units)

**146. AMERICAN CIVILIZATION**

Historical development of the fundamental values of the American culture and the influences of these in selected areas of American life. This course meets the state code requirements in the U.S. Constitution and in U.S. history. (5 units)

**155. MINORITY GROUPS IN AMERICA**

Black, Mexican-American and other minority groups as approached from the perspectives of history and the social sciences. (5 units)

**160. CONTEMPORARY CIVILIZATION: VALUES AND BEHAVIOR**

Interpretation of contemporary society in the light of the knowledge and theories of sociology, anthropology and psychology. (5 units)

## **404 / Social Sciences**

### **165. REGIONS AND PEOPLES OF THE WORLD**

Survey of major regions of the world using general physical and cultural concepts to explain patterns and problems of human activities in relation to natural environments. (5 units)

### **215. STATISTICS FOR THE SOCIAL SCIENCES**

Introduction to statistical methods as applied to the social and behavioral sciences. Includes both descriptive and inferential statistics. A self-paced independent study course. Credit may not be received for more than one of the following courses: Management Science 210, Psychology 210, or Social Sciences 215. *Prerequisite: Mathematics 110 or equivalent competency.* (5 units)

### **300. NONWESTERN WORLD**

Historical, political, social, geographic and economic aspects of nonwestern societies. (5 units)

### **304. CONTEMPORARY LATIN AMERICA**

Social, economic and political conditions and institutions in contemporary Latin America. (5 units)

### **315. CULTURAL ADAPTATION: THE QUEST FOR SURVIVAL**

An interdisciplinary inquiry into diverse cultural solutions to universal human problems. Topics include alternative cultural provisions for satisfying economic, social, political and religious needs. (5 units)

### **321. URBANIZATION AND THE URBAN ENVIRONMENT**

Patterns and processes of urban growth. Major emphasis on reasons for growth of cities; economic, social, political and structural changes in urban areas which accompany urbanization; and a cross-cultural analysis of urban problems. (5 units)

### **325. PERSPECTIVES ON GENDER**

This interdisciplinary course uses scientific, humanistic, and social science perspectives to foster an understanding of how gender roles in Western culture are established, maintained and changed. (Also offered as Humanities 325 and Natural Sciences 325. Students may receive credit for only one of these courses.) (5 units)

### **333. SANITY AND CIVILIZATION**

Effects of the social, political and economic institutions of past and contemporary civilizations on definitions of sanity and insanity, and the impact of such definitions on the quality of life. (5 units)

### **343. UNDERSTANDING SOCIALISM**

Description and analysis of socialism: social, economic, political and historical issues. (5 units)

### **345. RELIGIOUS EXPRESSION IN AMERICA**

Interdisciplinary social science analysis of the relationship among religious beliefs, religious practices and secular society in American culture. (5 units)

### **495. EXPOSITORY WRITING FOR THE SOCIAL SCIENCES**

Writing related to the social sciences including documented research reports, summaries and analytical papers. Revision and rewriting will be required. Course fulfills the graduation requirement in writing proficiency. No more than one of the Expository Writing courses (Education 495, Management 495, English 495, Humanities 495, Natural Sciences 495, Social Sciences 495) may be taken for credit. Graded A,B,C/No Credit. *Prerequisites: English 101 and a minimum of 90 quarter (60 semester) units of college credit.* (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)



## SOCIOLOGY

*Department of Sociology  
Administration Building, Room 183  
887-7224*

The sociology major offers a balanced program of study for students interested in pursuing graduate study or in the practical application of sociology. The curriculum is designed to expose the student to the scope and methods of sociology and to provide a broad educational background for understanding the structure and functioning of modern society.

As an adjunct to the curriculum, there are two student organizations for sociology majors. The Sociology Club has a varied program of social, community service and academically oriented activities. In addition to general sociology majors, students in criminal justice and students in social work actively participate in the club. A chapter of Alpha Kappa Delta, the sociology honor society, is open to junior sociology majors with a 3.5 GPA and to seniors and graduate students with a 3.0 GPA.

### Requirements for the Bachelor's Degree

*Requirements for the major:* a core consisting of Sociology 100, 308, and 10 units chosen from Sociology 310, 312, and 360. Also required are 35 additional quarter units in sociology, 30 of which must be upper division. With the consent of the department advisor, five upper-division units in related fields may be substituted for course requirements in the major. By the end of their junior year, all sociology majors should complete Sociology 308. It is strongly recommended that students take this course as soon as possible after declaring their major.

Offered within the sociology major is a program in ethnic studies, with an emphasis in Black studies or Mexican-American studies. In addition to the required core courses for the sociology major, the ethnic studies option requires 20 quarter units in either Black studies or Mexican-American studies, at least 10 units of which must be in sociology. (These 20 units of ethnic studies count as 20 of the required upper-division elective units for the sociology major.) An additional 10 quarter units in upper-division sociology are also required.

Students are free to construct individual programs through their choice of electives, or electives may be chosen to correspond to some of the recognized subdivisions of sociology: social problems (200, 320, 322, 330, 344, 352, 354, 355, 356, 410, 420, 434, 441); social psychology (339, 344, 354, 356, 363); criminology (350, 352, 354, 357, 358, 359); social work (318, 320, 434, 436, 473, 484); and ethnic studies (322, 340, 341, 342, 410, 440, 441, 442).

*Requirements for the minor:* 30 quarter units in sociology selected with the consent of a departmental advisor. Ten of these may be at the lower-division level.

## 408 / Sociology

*Departmental Honors:* Students majoring in sociology are eligible to receive honors in sociology at graduation if they have met the following: 3.5 GPA in all sociology courses attempted, at least half of all work attempted in sociology completed at this university, and recommendation for departmental honors by the sociology faculty. It is strongly recommended that students qualifying for departmental honors register for Sociology 597 (Senior Honors Project).

### Social Work

For students interested in pursuing a career in social work, the department advises an alternative program incorporating the core courses as noted above plus Sociology 434, 436, 484, and 15 additional quarter units in sociology. It is recommended that Sociology 318 be included. Students should begin planning for such a program with the coordinator of social work before starting their junior year.

### Certificate Programs

The Department of Sociology offers certificate programs in applied gerontology and in social work. Details concerning these programs are found on Pages 110 and 119.

#### 100. THE STUDY OF SOCIETY

Survey of the basic characteristics and dynamics of society and culture from the sociological perspective. (5 units)

#### 103. CRITICAL ISSUES IN CRIMINAL JUSTICE

Contemporary problem areas in the criminal justice system, including issues in evidence, arrest and detention, search and seizure, the ideology of crime control and criminal justice reform and specific areas of crime (organized crime, political crime). (Students may not receive credit for both Sociology 103 and Criminal Justice 103.) (5 units)

#### 200. SOCIAL PROBLEMS

Social problems in modern industrial societies. Discussion of sociological research and theoretical propositions dealing with such problems as drug addiction, mental illness, war, abortion and sexual perversions. (5 units)

*Prerequisite for upper-division courses is Sociology 100, or consent of instructor.*

#### 308. INTRODUCTION TO SOCIOLOGICAL RESEARCH

Basic ideas and techniques used by sociologists in conducting research such as participant observation and case studies, surveys of public opinion and attitudes and experiments with small groups. Lecture and six hours of laboratory. *Prerequisite: Mathematics 100 or 110.* (6 units)

#### 310. HISTORY OF SOCIOLOGICAL THEORY

Historical development of classical sociological theory. (5 units)

#### 312. CONTEMPORARY SOCIOLOGICAL THEORY

Contemporary sociological theory, including an examination of origins, trends, schools and areas of controversy. *Prerequisite: Sociology 310.* (5 units)

#### 318. SOCIAL WELFARE POLICIES AND SERVICES

Survey and analysis of welfare as a complex of societally established income maintenance and social service programs. (5 units)

**320. THE SOCIOLOGY OF CHILD ABUSE**

The occurrence, causes and effects of child abuse as a social phenomenon. (5 units)

**322. SOCIOLOGY OF THE GHETTO**

Existing theories relating to ghetto life styles; the relationship of these to American society as a whole. (5 units)

**330. SOCIAL GERONTOLOGY**

Age-status and age-roles in American society, with cross-cultural comparisons including intergenerational conflict and other age-related behaviors. (5 units)

**339. SOCIALIZATION**

Theories, goals and processes of childhood socialization and, to a lesser extent, adult socialization. Emphasis on organized social roles as they are mediated through the norms and patterned interactions of institutions; that is, the family, peer groups and the schools. (5 units)

**340. SOCIOLOGY OF THE FAMILY**

A systematic and comparative analysis of family structure and change: marriage, reproduction, child-rearing, marital problems. (5 units)

**341. MARRIAGE AND FAMILY AMONG BLACKS**

Forces affecting the Black family, with emphasis on the roles assigned to individual members. (5 units)

**342. THE CHICANO FAMILY**

Consideration of the traditional and changing Mexican-American family patterns. Regional and social class variations. Influence of the family on Mexican-American personality development from a social-psychological perspective. (5 units)

**344. SEX ROLES: THE LIFE CYCLE**

An examination of the social roles of men and women in contemporary American society from a life-cycle perspective. Class and racial/ethnic variations in sex-role socialization are emphasized. (5 units)

**350. CRIMINOLOGY**

Causes of crime with emphasis on sociological factors. (5 units)

**352. JUVENILE OFFENDER**

Causes of juvenile delinquency, types of juvenile offenders, the juvenile court, legal aspects of delinquency and methods of rehabilitation. (5 units)

**354. DEVIANT BEHAVIOR**

Deviant modes of human adjustment to modern society; processes of personal-social interaction in development of individual and group deviation. (5 units)

**355. MEDICAL SOCIOLOGY**

Patient's self concept from the pre-patient stage to the post-patient state and the relationship to the social system. Developmental stages in the "sick role" in contemporary society are emphasized. (5 units)

**356. SOCIOLOGY OF MENTAL ILLNESS**

Cultural variations in definitions of mental health and illness; social processes involved in defining, labeling and treating mental illness; stigmatizing effects of being labeled mentally ill; relationship of the incidence and treatment of mental illness to class, ethnicity and other sociological categories. (5 units)



## 410 / Sociology

### 357. LAW ENFORCEMENT

Sociological analysis of law enforcement systems and the police role, consideration of police discretion and differential implementation of the criminal law, problems affecting crime control and the interdependence of police and community. (Students may not receive credit for more than one of the following courses: Criminal Justice 357, Criminal Justice 357A or Sociology 357.) (5 units)

### 358. PUNISHMENT AND CORRECTIONS

History and theories of punishment and treatment in dealing with criminals, sociological analysis of institutional systems and community based systems, work release programs and pre-release guidance centers. (Students may not receive credit for both Criminal Justice 358 and Sociology 358.) (5 units)

### 359. LAW AND SOCIETY

Social and cultural factors underlying the development, maintenance and change of law, legal structures and legal processes; comparative analysis of legal systems; and sociological consideration of the nature of justice. (Students may not receive credit for both Criminal Justice 359 and Sociology 359.) (5 units)

### 360. SOCIAL PSYCHOLOGY

Study of social interaction as it influences the development of self, role behavior, attitudes and values. Emphasis on symbolic interaction as a school of thought. (5 units)

### 363. SOCIOLOGY OF MASS COMMUNICATION

Study of symbolic and organizational aspects of mass communication systems. Special attention to attitudes and beliefs as influenced by the mass media. (5 units)

### 364. PUBLIC OPINION AND PROPAGANDA

Nature and bases of public opinion; the social context of propaganda, its bases, its social psychological functions and the techniques of propagandists. (5 units)

### 368. SOCIOLOGY OF WORK AND THE PROFESSIONS

Development of occupational roles, with emphasis on specialization and mobility; impact of occupations on social institutions; special focus on the development of the professions. (5 units)

### 369. MILITARY SOCIOLOGY

Interrelationships between the civilian and military sector.

A. Comparative Military Sociology (2½ units)

B. American Military Sociology (2½ units)

### 370. SOCIOLOGY OF POPULAR CULTURE

Sociological study of leisure and popular culture, including sports and mass media. Analysis of the relationships among popular culture, social structure and social change. (5 units)

### 380. SOCIOLOGY OF RELIGION

Theoretical analysis of religion as a social institution in complex societies. Structure and functioning of religious organizations, roles and role relationships; types of religious organizations and leadership; relationships of religion to other social institutions; religion and social change. (5 units)

### 388. SPECIAL COMPREHENSIVE EXAMINATION IN SOCIOLOGY CORE CURRICULUM

Independent study, without required classroom meetings, of the subject matter appropriate to three courses required for the major: Sociology 310, 312 and 360. *Prerequisite: consent of instructor.* Refer to Page 67 for comprehensive examination limitations. (15 units)

**410. RACIAL AND CULTURAL MINORITIES**

Minority group status in contemporary American society. (5 units)

**420. POPULATION AND SOCIAL ECOLOGY**

Social causes and consequences of population growth, decline and relocation. (5 units)

**430. URBAN SOCIOLOGY**

Nature, causes and consequences of urbanization; metropolitan areas; location and types of cities; social and demographic characteristics of urban populations. (5 units)

**432. POLITICAL SOCIOLOGY**

Examination of political process from the perspective of sociology, exploring in depth the nature, distribution and exercise of power, and related areas of interest. (5 units)

**434. COMMUNITY ORGANIZATION**

Programs of action, operative and proposed, for the organization of the community and the solution of its problems. (5 units)

**436. GROUP DYNAMICS**

Dynamics of primary group relationships, including psychotherapy groups. (5 units)

**438. INDUSTRIAL SOCIOLOGY**

Human relations in industry, both formal and informal, with special attention to problems of morale, productivity, decision-making and bureaucratic structure. (5 units)

**440. POWER AND PRIVILEGE**

Class, caste and other systems of social stratification with particular reference to the United States. (5 units)

**441. BLACK SOCIAL STRATIFICATION**

Caste in America, comparison of Black and white stratification, Black social mobility. (5 units)

**442. CHICANO SOCIAL STRATIFICATION**

Variables affecting the social status of the Mexican-American in society, Mexican-American social mobility, social class differences in Mexican-American communities. (5 units)

**450. WHITE COLLAR CRIME**

Study of America's most costly form of crime and deviance. History, causes, consequences, prevention and explanations of economic crime and abuse of power in the corporate and business world, the professions, trades, the unions and government. (Students may not receive credit for both Sociology 450 and Criminal Justice 450.) (5 units)

**473. INTERVIEWING IN SOCIAL WORK**

Basic interviewing methodology and techniques utilized by social workers in communicating with people who are experiencing adjustment problems. (5 units)

**484. SOCIAL CASEWORK**

Process of problem solving used by social work agencies to help individuals to cope more effectively with their problems in social functioning. (5 units)

**488. SPECIAL COMPREHENSIVE EXAMINATION IN SOCIOLOGY ELECTIVES**

Independent study, without required classroom meetings, of the subject matter appropriate to these three elective courses: Sociology 363, 364 and 370. *Prerequisite: consent of instructor.* Refer to Page 67 for comprehensive examination limitation. (15 units)

## 412 / Sociology

### 575. INTERNSHIP IN SOCIOLOGY AND SOCIAL WORK

Supervised work and study in private or public organizations. May be repeated once for credit. Graded credit/no credit. *Prerequisites: consent of instructor and department.* (5 units)

### 590. SEMINAR IN SOCIOLOGY

An intensive study of some phase of sociology to be developed by the instructor with the class. May be repeated for credit as topics change. *Prerequisite: consent of instructor.* (5 units)

### 595. INDEPENDENT STUDY

Special topics involving library and/or field research. A total of 10 units in Sociology 595 may be applied toward graduation. *Prerequisites: senior or graduate standing, a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (Credit to be arranged: 2–5 units)

### 597. SENIOR HONORS PROJECT

Original research in an area of sociology, culminating in a major research report. The research project may be of a quantitative or qualitative nature. Enrollment limited to students whose formal application for departmental honors is approved. *Prerequisite: formal application approved by department chair.* (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

*600-level courses are open to postbaccalaureate and graduate students only*

### 606. SOCIOLOGY OF TERRORISM

Ideology, causes, development and sociological effects of terrorism in society. Also included are the histories of terrorist groups, social-psychological profiles of members, technology and modus operandi. (5 units)

## SPANISH

*Department of Foreign Languages  
Pfau Library Building, Room 236B  
887-7445*

### Requirements for the Bachelor's Degree

*Requirements for the major:* proficiency in Spanish equal to that of Spanish 103 or its equivalent\*; Spanish 202, 204, 301, 302; 10 units of Spanish 400; 10 units of Spanish 514; five units chosen from Spanish 312, 314, or 316; and 10 units chosen from any other upper-division Spanish course in language, culture, civilization and literature. One course in Foreign Languages 450 or Spanish 450 may be applied toward the requirement when the topic is any Hispanic literature. These two courses, however, will not meet the requirements of Title V for the preparation of teachers for the public schools.

*Teaching Credential Program:* The Bachelor of Arts in Spanish is approved as a single subject teaching credential program. In addition to the requirements of the major, credential candidates must complete Spanish 514, Seminar in Hispanic Language, Literature or Civilization (when the topic deals with civilization or culture), as well as certain prerequisites to the teacher education program. For information about the professional education component, admission to the teacher education program or specific requirements of the single subject waiver program see Page 208 or contact the School of Education Credentials Office.

*Requirements for the minor:* proficiency in Spanish equal to that of Spanish 103 or its equivalent\*, and twenty additional units in Spanish, ten of which must be at the upper-division level.

### Certificate Program

The Department of Foreign Languages and Literatures offers a certificate program in Spanish for Public Services. Details concerning this program are found on Page 119.

Spanish majors are encouraged to broaden the scope of their studies by using some of their electives to take courses in French or German. Many students may desire to use their electives to prepare a minor or a second major. The department encourages such a program and is prepared to help each student plan.

*Courses at the 101, 102 and 103 levels require one hour each week in the language laboratory in addition to the regularly scheduled classroom hours.*

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\* Entering students with previous training in Spanish, and those who are native speakers, should contact the department for information about advanced placement and credit by examination.

## **414 / Spanish**

### **101. COLLEGE SPANISH I**

Fundamentals of pronunciation, structure and Hispanic culture designed to develop the ability to use and understand basic spoken Spanish. (5 units)

### **102. COLLEGE SPANISH II**

Continuation of Spanish 101. (5 units)

### **103. COLLEGE SPANISH III**

Continuation of Spanish 101 and 102 stressing conversation and acquisition of reading skills. (5 units)

### **133. PRACTICAL SPANISH FOR PROFESSIONALS AND TRAVELERS**

Fundamentals of Spanish with emphasis on vocabulary used in the medical, teaching, law enforcement and social welfare professions or in traveling. May be repeated for a maximum of 10 units of credit. May not be counted toward fulfilling requirements in the Spanish major. (5 units)

### **202. GRAMMAR AND COMPOSITION**

Comprehensive review of the principles of Spanish grammar, emphasizing their application to composition. *Prerequisite: Spanish 103 or equivalent.* (5 units)

### **204. INTRODUCTION TO LITERARY TEXTS**

Techniques of literary study and analysis. Vocabulary development. *Prerequisite: Spanish 103 or equivalent.* (5 units)

### **206. CONVERSATION**

Practice of oral Spanish stressing the discussion of current topics. Panel discussions, debates, short talks, skits. May be repeated for a maximum of five units of credit. May not be counted toward fulfilling requirements in the Spanish major. *Prerequisite: Spanish 103.* (2½ units)

*Ordinarily, upper-division courses are conducted in Spanish. Students enrolled in these courses will be evaluated on appropriate progress in both the command of the language and the subject matter.*

### **301. PRACTICAL PHONETICS**

In-depth study of the Spanish sound system. Oral practice and study of general principles of Spanish phonology and dialectology. *Prerequisite: Spanish 202 or 204 or equivalent.* (5 units)

### **302. THEORY AND PRACTICE IN COMPOSITION**

Extensive practice in composition and style. May be repeated for credit. *Prerequisite: Spanish 202 or 204 or equivalent.* (5 units)

### **312. TECHNIQUES FOR PROFESSIONAL INTERPRETING AND TRANSLATING IN SPANISH**

Oral and written practice and methods of translation from Spanish to English and English to Spanish with application to public service activities. *Prerequisite: Spanish 302.* (5 units)

### **314. ADVANCED CONVERSATION**

Intensive practice of oral Spanish leading to fluency, to the development of a comprehensive, practical vocabulary and to public speaking skills. *Prerequisite: Spanish 302.* (5 units)

### **316. SPANISH IN COMMUNICATION MEDIA**

Oral and written practice in terminology and vocabulary used in business, law, science, technology, television and radio. *Prerequisite: Spanish 302.* (5 units)

### **399. COMMUNITY SERVICE PROJECT**

Credit for performing academically related tasks in such agencies as governmental, social service and educational institutions. May be repeated for a total of six units. No more than six units of credit for Community Service Project courses may be applied toward degree requirements. Graded credit/no credit. *Prerequisite: consent of department.* (Credit to be arranged: 1 or 2 units)

**400. MASTERPIECES IN SPANISH AND SPANISH AMERICAN LITERATURE**

Reading and discussion of selected masterworks of Spanish and Spanish American literature. May be repeated as topics change. *Prerequisite: Spanish 204.* (5 units)

**415. COMPARATIVE LINGUISTICS: SPANISH/ENGLISH**

Application of modern linguistic theory to the problems of second language acquisition in the areas of phonology, morphology and syntax. Emphasis will be given to analysis of the subsystems of English and Spanish. Includes classroom applications. *Prerequisite: Spanish 301 or consent of instructor.* (5 units)

**440. MEXICAN LITERATURE**

Survey of the development of Mexican literature from 1520 to the present. *Prerequisite: Spanish 204 or equivalent.* (5 units)

**450. MEXICAN LITERATURE IN TRANSLATION**

Critical examination of selected works of Mexican literature. Emphasis on the novel, drama, poetry and the essay. May not be taken for credit by students who have received credit for Foreign Languages 450, Literature in Translation: Mexico. (5 units)

**514. SEMINAR IN HISPANIC LANGUAGE, LITERATURE OR CIVILIZATION**

Advanced study of a single author, a literary movement, linguistics or civilization. May be repeated as topics change. *Prerequisite: one 400-level Spanish course.* (5 units)

**599. DIRECTED STUDIES**

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## SPECIAL MAJOR

*Undergraduate Program*  
*Office of Dean, Undergraduate Studies*  
*Administration Building, Room 184*  
*887-7891*

*Graduate Program*  
*Office of Associate Dean, Graduate Programs*  
*Administration Building, Room 182*  
*887-7755*

### BACHELOR OF ARTS IN SPECIAL MAJOR

Occasionally, students with specialized educational or professional objectives may find that the existing degree programs offered at the University do not satisfy personal needs or career plans and that a carefully structured, interdisciplinary program of study is more appropriate. The special major, through which students design their own program of study drawn from the regular offerings of two or more departments, is intended to meet this need.

In order to be considered for admission to the special major program, a student must select a full-time faculty member to serve as academic advisor and must develop a program of study to be submitted for approval on forms available through the Office of the Dean of Undergraduate Studies. Once the program of study is approved by the University Curriculum Committee and by the dean of undergraduate studies, the student is admitted to the program.

### Requirements for the Bachelor's Degree

In addition, the following limitations and regulations apply:

1. To be admitted to the special major program, the student must have more than one full year of academic work (45 quarter units) remaining to complete the minimum requirements for a bachelor's degree.
2. The plan of study must include at least 40 quarter units of upper-division work.
3. No courses that are applied to the general education requirements of the University are applicable toward the minimum requirements of the special major.
4. The special major may not be used as a second major or as a second bachelor's degree.
5. The special major cannot be used to substitute for a degree program offered elsewhere in the California State University which this University is not authorized to offer. It cannot be used to bypass normal graduation requirements, nor can it serve as an alternative to completion of degree requirements for a major in which the student is in academic difficulty.

6. If any independent study courses are included in the program, students must meet the University requirements for such courses at the time they submit their application for a special major.

7. No more than 10 units of Independent Study may be applied to the special major.

## MASTER OF ARTS IN SPECIAL MAJOR

Occasionally a student wishes to pursue special interests or career goals that are not met by existing graduate programs. For this student, the Special Major M.A. offers the opportunity to create a master's degree program that may be interdisciplinary in nature or is not otherwise substantially available in a current graduate program offered at this university.

The university has especially strong potential for developing a special M.A. program in:

*Health Services Administration*, which combines the disciplines of health science, administration and education and serves several applied fields and career objectives.

Examples of other programs could include:

Social Gerontology (sociology, psychology, administration)

Human Services (social work, administration, criminal justice)

Images of Women in Culture (art, literature, anthropology)

Uses of Media in Art Production (education, art)

Educational Technology (education, art, computer science)

Humanities (combining various disciplines such as theatre arts and music)

Liberal Studies (combining disciplines from the humanities and social sciences)

This individualized master's degree is designed to be a highly challenging academic program for the self-motivated student who has a clear perception of objectives and a background which will allow advanced study in the disciplines combined in the program. The Special M.A. is designed to accommodate unique student interests or to prepare students for fields which require programs not presently offered at the University. It is not a replacement of existing degree programs but an enrichment of the University's offerings. This program is designed by the student in consultation with the associate dean of graduate programs and three faculty members. The three faculty members, who comprise the student's faculty committee, are usually selected from more than one academic discipline. Once the program is approved by the committee, it is then submitted to the Committee on Graduate Education for its approval.

## Admission to the M.A. Program

In addition to the general requirements of the University, specific requirements for admission to classified graduate status are:

1. A cumulative undergraduate GPA of at least 2.5 overall and at least 3.0 in the major;
2. A three-member faculty committee, the chair of which serves as primary advisor, to supervise the course of study;



3. A Special M.A. proposal submitted, on forms available from the Office of the Associate Dean of Graduate Programs, to the University Committee on Graduate Education; the program of courses must not significantly duplicate any existing degree program on this campus or on any other state college or university campus;
4. Approval of the program proposal by the Committee on Graduate Education.

If approval is recommended by the Committee on Graduate Education, the student is formally admitted into the program in either conditionally classified or classified status.

### **Requirements for the Special Major M.A. Degree**

1. The program of study should normally be interdisciplinary, including course work from at least two disciplines represented at the University;
2. The program of study must include a minimum of 45 quarter units of course work: at least half of all course work taken must be in 600-level courses;
3. The program of study must not include more than 20 units of independent study course work (including thesis and/or project research);
4. The program must include a synthesizing experience (comprehensive examination, project or thesis). Students may register for no more than nine units of thesis or project credit;
5. A GPA of 3.0 (B) must be earned in course work taken to satisfy the Master of Arts degree requirements and grades of C (2.0) or better in all courses in the program. Grades of C- (1.7) or less cannot be used toward the degree;
6. Students must satisfy the upper-division writing requirement prior to advancement to candidacy;
7. When students have completed between 15 and 23 units of course work on an approved study plan, it will be necessary for them to submit a formal letter to the Office of the Associate Dean of Graduate Programs requesting advancement to candidacy;
8. Any additional general requirements not cited above and listed on Page 94.

## THEATRE ARTS

*Department of Theatre Arts  
Creative Arts Building, Room 175  
887-7452*

The theatre arts major has a practical appeal for students with diverse interests. Directly related career opportunities are to be found in the technical or performance areas of cinema, television, commercial or noncommercial theatre and education.

Because of study, research, and of interpersonal skills developed, and of discipline required, there are also many indirectly related career opportunities in such fields as research, merchandising, sales and design.

Many courses in the department are without prerequisites which make them appealing electives. Liberal studies majors will benefit from a concentration in theatre arts by developing new perceptions of divergent thinking and practical skills which can be used in an elementary classroom.

The theatre arts department produces a major play each term as well as periodic special events such as The Theatre Festival for Young Audiences, a project of the Southern California Educational Theatre Association. Students are encouraged to work with faculty and staff developing their own productions ranging from narrowly defined acting/directing projects to full-scale productions. In addition, highly motivated and skilled students earn special opportunities to work as assistant designers or directors for major productions.

Theatre arts majors choose to concentrate in one of three areas once they have completed a common core of courses: acting, design/technical, dramatic literature/graduate school. Students interested in children's theatre, see Certificate Programs, Page 105.

### **Requirements for the Bachelor's Degree**

*Requirements for the major:* completion of the core and one emphasis, plus theatre arts electives to make 85 units.

#### *Basic core:*

Theatre Arts 222 (for a total of two units); 231, 232 or 233, 236, 251, 252; four units of Theatre Arts 320 A,B or C; six units of Theatre Arts 320 D; 346, 351, 361, 362, 363; five units chosen from Theatre Arts 450, 451, 455, 456, 461, 475, 476.

#### *Acting emphasis:*

Theatre Arts 131, 211, 245, 253, 312, 352, 353, 354, 485, 550.

#### *Design/technical emphasis:*

Theatre Arts 131, 222, 232 or 233 (if not taken for core), 332; four units of 334; 336; six units of 337 and/or 338; 430, 530.

#### *Dramatic literature/graduate school emphasis:*

Theatre Arts 211, 332, 336, 446; and, in addition to core, Theatre Arts 450, 461, 475 or 476.

## **420 / Theatre Arts**

*Requirements for a minor in theatre arts:* Theatre Arts 222, 231, 236, 251, 252, 4320D, 346, 351, 361, 362, 363, and one course selected from the dramatic literature sequence, 450–476.

### **Certificate Program**

The Department of Theatre Arts offers a certificate program in Children's Theatre. Details concerning this program are found on Page 105.

#### **131. STAGE MAKEUP**

Theory and application of stage makeup. (2 units)

#### **211. ORAL INTERPRETATION OF LITERATURE**

Introduction to the techniques of the oral performance of literature; emphasizes literary and aesthetic analysis and the oral presentation of poetry and prose. (3 units)

#### **221. THEATRE LABORATORY: PERFORMANCE**

Students select their own scenes and one-act plays which they act and direct in an informal studio setting. Open to all students. A maximum of five units of Theatre Arts 221 or 222 in any combination may be used to satisfy graduation requirements. (1 unit)

#### **222. THEATRE LABORATORY: CONSTRUCTION**

Laboratory application of technical theatre (scenery, costumes or lighting) for an audience. Open to all students. A maximum of five units of Theatre Arts 221 or 222 in any combination may be used to satisfy graduation requirements. (1 unit)

#### **231. STAGECRAFT**

Introduction to the theory and practice of scenery and prop construction including the use of tools, materials, techniques and drafting required in execution of designs. Theatre Arts 222 must be taken concurrently. (3 units)

#### **232. LIGHTING THEORY**

Basic electrical theory, refraction, reflection, color in light, instrumentation and control equipment used in theatre. Theatre Arts 222 must be taken concurrently. (2 units)

#### **233. COSTUME CONSTRUCTION**

Costume techniques including basic pattern drafting, cutting, fitting and construction of garments. Theatre Arts 222 must be taken concurrently. (2 units)

#### **236. INTRODUCTION TO DESIGN**

Study of the elements of line, color and texture through two- and three-dimensional projects as they relate to scenery and costume design. (2 units)

#### **245. BEGINNING THEATRE MOVEMENT**

Beginning theory and fundamentals of specialized stage movement. (2 units)

#### **250. THE ART OF THEATRE ARTS**

Development of an awareness of such arts of the theatre as set, costume and lighting design; of acting and directing; of theatre management, organization; and of the history of theatre architecture and dramatic literature. The course will be arranged around a contemporary theatrical event. (5 units)

**251. ACTING I**

Foundation training for actors through theatre games, improvisation and exercises for developing expressive freedom, creativity, relaxation and concentration. (3 units)

**252. ACTING II**

Fundamentals for creating a role methodically. Improvisational exercises encouraging the use of such elements as objectives, given circumstances, character analysis and conflict. *Prerequisite: Theatre Arts 251.* (3 units)

**253. VOICE FOR THE STAGE**

Theory and practice of vocal techniques for the actor, including voice production, diction, flexibility, projection and voice care. (2 units)

**302. ANALYSIS OF DRAMA**

Analysis of selected plays. Written analysis required. (Students who enroll in this course may receive either English or theatre arts credit but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) *Prerequisite: English 101.* (5 units)

**312. ORAL INTERPRETATION FOR THE THEATRE**

Techniques for the oral performance of drama, including literary and aesthetic analysis of plays. (3 units)

**320. THEATRE PRACTICUM**

Performance students experience role preparation, rehearsal and acting before an audience; Imagination Players gain touring experience in rehearsal and performance of children's literature, readers theatre style; Touring Theatre students experience rehearsal and performance of adult dramatic material; technical production students experience application of scenery, costumes, lighting or stage management; special projects students experience production of student-developed projects. Open to all students. No more than 10 units of theatre practicum may be counted toward fulfilling course requirements in the theatre arts major. No more than 20 units of theatre practicum may be used to satisfy graduation requirements.

- A. Performance (2 units)
- B. Imagination Players (2 units)
- C. Touring Theatre (2 units)
- D. Technical Production (2 units)
- E. Special Projects (2 units)

**332. STAGE LIGHTING DESIGN**

Basic lighting design theories. Lighting design plots for various theatrical styles will be developed. May be repeated for credit up to nine units. *Prerequisites: Theatre Arts 222, 231 and 232.* (3 units)

**334. THEATRECRAFTS**

Theory and application of a theatrecraft such as: stage management, shop crafts, scene painting, millinery, pattern drafting, rendering. Experience with the craft will be provided. May be repeated for credit as topics change. (2 units)

**336. DESIGN: ELEMENTS OF SCENERY AND COSTUME DESIGN**

Projects in scenic and/or costume design. Concentration on tools of the designers, renderings, floor plans and elevations. May not be repeated for credit. *Prerequisites: Theatre Arts 231 and 236.* (3 units)

**337. DESIGN: COSTUME DESIGN**

Advanced projects in the design of costumes with an emphasis on rendering techniques and stylization. A maximum of 12 units of Theatre Arts 337 or 338, in any combination, may be applied toward the theatre arts degree. *Prerequisite: Theatre Arts 336.* (3 units)

## 422 / Theatre Arts

### 338. DESIGN: SCENE DESIGN

Advanced projects in scene design, using both renderings and models. Concentration on an exploration of design styles. A maximum of 12 units of Theatre Arts 337 or 338, in any combination, may be applied toward the theatre arts degree. *Prerequisite: Theatre Arts 336.* (3 units)

### 345. THEATRE MOVEMENT

Theory and fundamentals of specialized stage movement including techniques in "physicalizing" a script and/or score, period manners, stage encounters and altercations.

A. (2 units)

B. (2 units)

### 346. DIRECTING I

Fundamentals of play directing through theory and practice. *Prerequisite: Theatre Arts 351 or consent of instructor.* (3 units)

### 351. ACTING III

Application of acting techniques through scene study of plays in the contemporary repertory. *Prerequisite: Theatre Arts 252.* (3 units)

### 352. ACTING IV

Continued scene study with an emphasis on plays in the modern classical repertory (for example, Ibsen, Chekhov, Shaw). *Prerequisite: Theatre Arts 351.* (3 units)

### 353. ACTING V

Studies and performance of selected styles in theatre from classical times to the 19th century. *Prerequisite: Theatre Arts 351 or 352.* (3 units)

### 354. ACTING VI

Concentrated study on performing Shakespeare, with emphasis on voice, movement and textual meaning. *Prerequisite: Theatre Arts 351 or 352.* (3 units)

### 361. THEATRE HISTORY I: ORIGINS THROUGH MEDIEVAL

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts. Representative examples of dramatic literature will be read to illustrate those trends. (5 units)

### 362. THEATRE HISTORY II: RENAISSANCE THROUGH 18TH CENTURY

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts. Representative examples of dramatic literature will be read to illustrate those trends. (5 units)

### 363. THEATRE HISTORY III: 19TH CENTURY TO THE PRESENT

Consideration of theatre architecture and theatre practices for the purpose of understanding the major trends in the development of theatre arts, including the impact of Asian theatre. Representative examples of dramatic literature will be read to illustrate those trends. (5 units)

### 382. READERS THEATRE IN THE CLASSROOM

Classroom application of group techniques for oral performance and staging of children's literature. Includes the preparation and performance of scripts to be used for reading enhancement and interdisciplinary studies, as well as the creation of original scripts. May not be counted toward fulfilling requirements of the theatre arts major. (5 units)

**383. DESIGN AND CONSTRUCTION FOR CHILDREN'S THEATRE**

Study of basic scenery and costume problems with special emphasis on construction methods and materials appropriate for elementary students. May not be counted toward fulfilling requirements in the theatre arts major. (5 units)

**385. ACTING FOR NON-MAJORS**

Introduction to acting through exercises, improvisations and scene study. Not open to theatre arts majors: (5 units)

**430. ADVANCED STAGECRAFT**

Advanced problems in planning, drafting, construction and rigging of scenery. *Prerequisites: Theatre Arts 222, 231, 236, 320D, 336.* (3 units)

**445. THE CAMERA EYE**

Film as a creative art medium. Such topics as the history of silent film, film since the '50's or television will be chosen. May be repeated for credit as topics change. May not be counted toward fulfilling requirements in the theatre arts major. (5 units)

**446. DIRECTING II**

Advanced studies in play directing. Concurrent enrollment in Theatre Arts 320E required. *Prerequisite: Theatre Arts 346.* (3 units)

**450. CLASSICAL DRAMA**

Development of comedy and tragedy in Greece and Rome. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**451. MYSTERY TO MELODRAMA**

Development of drama from medieval passion plays to late 19th century villain-hissing melodramas. Emphasis on either comedy or tragedy. (5 units)

**455. MODERN DRAMA I**

European, British and American realism, beginning with variations of the 19th century well-made play. Emphasizes such playwrights as Ibsen, Chekhov, Shaw and O'Neill. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**456. MODERN DRAMA II**

European, British and American anti-realism, including various avant-garde movements. Emphasizes such playwrights as Brecht, Pinter, Wilder and Genet. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**461. AMERICAN DRAMA**

Survey of the American theatre and its drama (Dunlap to Odets) as they reflect the changing patterns of American society. (5 units)

**475. SHAKESPEARE I**

Comedies and history plays. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

**476. SHAKESPEARE II**

Tragedies and romances. (Students who enroll in this course may receive either English or theatre arts credit, but not both. Liberal studies majors cannot use this course to satisfy the 15 units of electives required in humanities.) (5 units)

## 424 / Theatre Arts

### 481. CREATIVE DRAMATICS

Experience with improvisational dramatic techniques which emphasize concentration, imagination and self-expression and are designed to develop creative leadership for parents, recreation leaders, elementary and secondary teachers. May not be counted toward fulfilling requirements in the theatre arts major. (5 units)

### 482. READERS THEATRE

Group techniques for oral performance and staging of literature. Includes the preparation and performance of scripts for readers theatre, choral theatre, story theatre and chamber theatre. *Prerequisites: Theatre Arts 211, 312, or consent of instructor.* (3 units)

### 483. CHILDREN'S THEATRE

Theory and techniques of selecting, directing and producing plays for child audiences; includes examination and evaluation of scripts, audience analysis, and the philosophy and application of children's theatre in an educational setting. (5 units)

### 485. ACTING THEORY

Historical performance and theory of the art of acting from classical to the present. (2½ units)

### 510. STUDIES OF MAJOR FIGURES AND GENRES

May be repeated for credit as topics change. (5 units)

### 520. THEATRE SEMINAR

Literature and theory relative to topics such as: aesthetics, theatre history, drama, dramatic criticism and design. May be repeated for credit as topics change. (5 units)

### 530. CAREER PREPARATION FOR DESIGNERS AND TECHNICIANS

Preparation of the designer/technician portfolio, including resumés for graduate school or the professional world. Occasional guest lecturers and field trips. *Prerequisite: senior standing or consent of instructor.* (2 units)

### 550. CAREER ORIENTATION FOR ACTORS

Preparation for working in professional theatre, including development of audition material, resumés and techniques, and insights into the theatrical process. Occasional guest lecturers. *Prerequisite: senior standing or consent of instructor.* (2 units)

### 555. INDEPENDENT STUDY

Study and analysis culminating in demonstrated expertise in the areas of performance, direction, design or theatre research. *Prerequisites: a minimum overall grade-point average of 3.0, consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the quarter in which the course is to be taken.* (5 units)

### 599. DIRECTED STUDIES

Small group or individualized instruction in any of the required areas of the major. *Prerequisites: consent of instructor, department chair and school dean.* (5 units)

## VOCATIONAL EDUCATION

*School of Education  
Pfau Library Building, Room 500 North  
887-7571*

### **BACHELOR OF VOCATIONAL EDUCATION (BVE)**

The Bachelor of Vocational Education (BVE) degree program has been designed to provide vocational teachers who have extensive occupational and teaching experience the opportunity to have that experience count as partial credit toward a baccalaureate degree. Qualified applicants can have their work experience evaluated (under provisions of the Swan Bill) and may be awarded up to 60 units of credit in the area of vocational arts. Anyone interested in vocational education, the BVE degree and a Swan Bill evaluation should take Education 335 as soon as possible.

#### **Requirements for the bachelor's degree**

Complete a minimum of 186 quarter units (192 if student must meet the physical education requirements) of college credit as indicated below. At least 45 of those quarter units must be completed as a regularly enrolled student at this university. Up to 105 quarter units of lower-division work may be accepted as transfer credit from an accredited community college or other accredited post secondary educational institutions. Within the 186 units required for graduation:

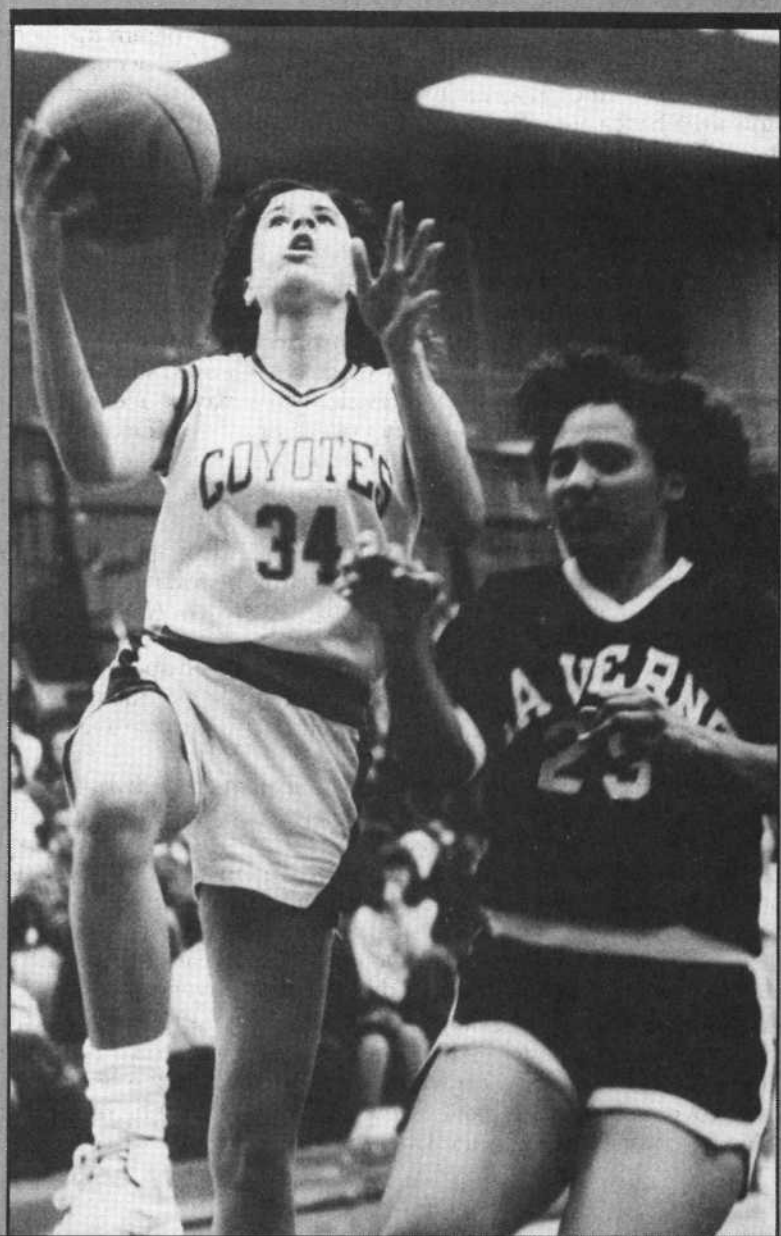
1. 75 quarter units must be in general education as specified in the General Education Requirements Page 81.
2. 45 quarter units must be within the vocational arts major. All or most of these units are usually awarded as the result of the Swan Bill evaluation of the applicant's occupational and teaching experience. At least 20 of these units must be upper-division.

NOTE: In order to qualify for a Swan Bill evaluation an applicant must have seven years of full-time work experience, two years of full-time or three years of part-time teaching experience and an appropriate teaching credential.

3. 40 quarter units must be in professional education course work, to include Education 335 and the vocational teaching credential courses (Education 501, 502 and 503 or their equivalent).
4. 26 quarter units must be prescribed electives in an area of study that is approved by the student's designated advisor.
5. Six quarter units must be in physical education activity courses. (This requirement applies only to people younger than 25 years of age.)
6. 60 quarter units must be in upper-division course work.

Students must earn a grade-point average of 2.0 (C) or better in all work attempted and 3.0 (B) or better in all professional education courses attempted; must complete the upper-division writing requirement and the history, constitution and government requirement (see Page 85); and must be recommended for graduation by the faculty of the University.









**Dr. Margaret Atwell**  
California State University, San Bernardino  
Outstanding Professor 1987

## FACULTY 1987–88

Richard T. Ackley, 1974

*Professor of Political Science; Director, National Security Studies Program*

B.A. 1950, University of Southern California; M.A. 1969, University of Hawaii; Ph.D. 1973, University of Southern California.

John W. Adams, 1986

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Nicholas J. Anderson, 1985

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Rise B. Axelrod, 1986

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Russell J. Barber, 1984

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Elliott R. Barkan, 1968

*Professor of History*

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Buckley B. Barrett, 1982

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## 430 / Faculty

Joe Bas, 1968

*Professor of Spanish*

A.B. 1958, California State College, Long Beach; A.M. 1964, Ph.D. 1966, University of Southern California.

David J. Bellis, 1985

*Associate Professor of Public Administration*

B.A. 1966, University of California, Los Angeles; M.A. 1969, Ph.D. 1977, University of Southern California.

David W. Bennett, 1985

*Assistant Professor of Communication*

B.A. 1971, Butler University; M.A. 1972, Central Michigan University; Ph.D. 1985, Ohio University.

Frank D. Benson, 1986

*Professor of Accounting and Finance*

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Jacques Benzakein, 1985

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Frances F. Berdan, 1973

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Anand R. Bhatia, 1972

*Associate Professor of Management Science*

B.Sc. 1957, M.E. 1961, Bombay University; B.S.E.E. 1964, Western States College of Engineering; M.B.A. 1966, D.B.A. 1975, University of Southern California.

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*Professor of History; Chair, Department of History*

B.A. 1963, City College of New York; M.A. 1964, Ph.D. 1968, New York University.

Marty Bloomberg, 1966

*Associate Library Director*

B.A. 1960, Texas Christian University; M.A. 1961, University of Denver; M.A.T. 1968, University of Redlands.

Craig G. Blurton, 1985

*Assistant Professor of Education*

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Sheldon E. Bockman, 1973

*Professor of Management*

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Richard J. Botting, 1982

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Stephen A. Bowles, 1974

*Professor of Education*  
B.A. 1960, University of Denver; M.A. 1964, University of Connecticut; Ph.D. 1972, University of California, Santa Barbara.

Berend D. Bruins, 1986

*Associate Professor of Political Science*  
B.A. 1962, University of Colorado; M.A. 1973, California State University, Long Beach; Ph.D. 1981, Columbia University.

Dominic M. Bulgarella, 1969

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A. Vivien Bull, 1976

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*Librarian*  
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B. Jill Buroker, 1981

*Associate Professor of Philosophy; Chair, Department of Philosophy*  
B.A. 1967, DePauw University; M.A. 1968, Ph.D. 1974, University of Chicago.

Thomas M. Burrows, 1986

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Louise F. Burton, 1982

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B.S. 1958, Auburn University; M.S. 1972, Jacksonville State University; Ed.S. 1976, Ed.D. 1981, The University of Alabama.

Katharine M. Busch, 1984

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## 432 / Faculty

Diane D. Butterworth, 1985

*Assistant Professor of Health Science*

B.A. 1978, San Francisco State University; M.P.H. 1981, University of California, Los Angeles; D.H.Sc. 1983, Loma Linda University.

Naomi J. Caiden, 1981

*Professor of Public Administration; Chair, Department of Public Administration*

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Lloyd E. Campbell, 1975

*Assistant Professor of Education*

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B.A. 1966, University of Santa Clara; Ph.D. 1970, University of North Carolina.

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*Professor of Spanish*

B.A. 1964, University of Mississippi; M.A. 1966, Ph.D. 1971, University of Kansas.

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*Professor of Public Administration*

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Wallace T. Cleaves, 1971

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Ward A. Cockrum, 1985

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*Associate Professor of Criminal Justice; Chair, Department of Criminal Justice*

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*Professor of Chemistry; Dean, School of Natural Sciences*

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## 434 / Faculty

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*Associate Professor of Accounting and Finance*

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Tony P. Garcia, 1986

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Bruce Golden, 1965

*Professor of English*

B.S. 1955, Northwestern University; M.A. 1958, Ph.D. 1966, Columbia University.

Janice Golojuch, 1984

*Assistant Professor of Art*

B.A. 1976, M.A. 1978, State University of New York; M.F.A. 1982, Syracuse University.

Grace M. Goodrich, 1982

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## 436 / Faculty

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J. Peter Graves, 1975

*Associate Professor of Management*

B.S. 1971, Ph.D. 1975, Brigham Young University.

Joseph W. Gray, 1969

*Assistant Professor of Education*

B.A. 1958, M.A. 1969, University of Redlands.

Chris C. Grenfell, 1975

*Associate Professor of Physical Education*

A.B. 1971, San Diego State University; M.S. 1973, University of California, Los Angeles; Ph.D. 1984, University of Southern California.

Richard W. Griffiths, 1978

*Professor of Education*

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*Assistant Professor of Anthropology*

A.B. 1970, Stanford University; M.A. 1974, Ph.D. 1982, University of Connecticut.

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*Associate Professor of Mathematics*

B.Sc. 1957, University of Exeter; Ph.D. 1961, University of London.

Diane F. Halpern, 1981

*Associate Professor of Psychology; Interim Dean of Undergraduate Studies*

B.A. 1968, University of Pennsylvania; M.A. 1973, Temple University; M.A. 1977, Ph.D. 1979, University of Cincinnati.

Roger W. Hamm, 1986

*Lecturer in Education*

B.S. 1974, M.Ed. 1980, Clarion University; Ph.D. 1985, Georgia State University.

Dalton Harrington, 1969

*Professor of Biology*

B.A. 1961, University of Omaha; M.S. 1965, University of Missouri, Kansas City; Ph.D. 1969, University of Nebraska.

Arlo D. Harris, 1967

*Professor of Chemistry*

B.S. 1961, University of Dayton; Ph.D. 1964, Tulane University.

Zahid Hasan, 1985

*Assistant Professor of Mathematics*

B.S. 1973, M.S. 1976, University of Punjab, Lahore, Pakistan; Ph.D. 1982, University of Birmingham, England.

John M. Hatton, 1967

*Associate Professor of Psychology; Director, Counseling and Testing Center*  
B.A. 1961, University of Minnesota; Ph.D. 1965, Stanford University.

Melvin G. Hawkins, 1973

*Professor of Sociology*  
B.A. 1959, Morehouse College; M.S.W. 1963, Atlanta University; Ph.D. 1977, United States International University.

Ann Marie Hearn, 1982

*Associate Professor of Accounting and Finance*  
B.S. 1975, Western New England College; M.B.A. 1981, American International College.

Paul A. Heckert, 1983

*Associate Professor of Physics; Chair, Department of Physics*  
B.A. 1974, Frostburg State College; M.S. 1977, Ph.D. 1983, University of New Mexico.

John W. Heeren, 1971

*Professor of Sociology; Chair, Department of Sociology*  
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Laura R. Held, 1984

*Lecturer in Intercollegiate Athletics*  
B.S. 1982, California State Polytechnic University, San Luis Obispo; M.S. 1984, University of Arizona.

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Beverly L. Hendricks, 1986

*Professor of Communication; Dean, School of Humanities*  
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## 438 / Faculty

Major Stephen J. Heynen, 1983

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Charles D. Hoffman, 1974

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B.S. 1967, Ph.D. 1972, Adelphi University.

H. Arthur Hoverland, 1972

*Professor of Accounting and Finance*

B.S. 1951, Miami University; M.S. 1954, University of Illinois; Ph.D. 1963, University of Michigan.

Irvin Howard, 1981

*Assistant Professor of Education*

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Robert L. Howell, 1983

*Lecturer in Theatre Arts*

B.A. 1973, University of California, Irvine; M.A. 1975, University of Washington.

Kimball N. Hughes, 1981

*Associate Professor of Mathematics*

B.S. 1974, Miami University; M.A. 1978, Ph.D. 1980, University of California, Los Angeles.

Dennis L. Ikenberry, 1965

*Professor of Physics*

B.A. 1961, Occidental College; M.A. 1965, Ph.D. 1965, University of California, Riverside.

Fred E. Jandt, 1983

*Professor of Communication; Chair, Department of Communication*

B.A. 1966, Texas Lutheran College; M.A. 1967, Stephen F. Austin State University; Ph.D. 1970, Bowling Green State University.

Jotindar S. Johar, 1984

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B.S. 1962, Delhi University; LL.B. 1965, Poona University; M.B.A 1973, Ph.D. 1984, McGill University, Montreal.

Jorun B. Johns, 1965

*Professor of German*

Ph.D. 1956, University of Vienna.

Kenneth M. Johns, 1985

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B.A. 1962, M.A. 1968, Sonoma State University; Ph.D. 1985, University of Arizona.

Paul J. Johnson

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Ellen N. Junn, 1986

*Lecturer in Psychology*

B.S. 1979, University of Michigan; M.A. 1982, Ph.D. 1984, Princeton University.

Lee H. Kalbus, 1965

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Sandra D. Kamusikiri, 1984

*Assistant Professor of English*

B.A. 1971, M.A. 1973, Ph.D. 1985, University of California, Riverside.

Julius David Kaplan, 1977

*Professor of Art; Associate Dean of Graduate Programs*

B.A. 1963, Wesleyan University; M.A. 1965, Ph.D. 1972, Columbia University.

John A. Kaufman, 1984

*Associate Professor of Communication*

B.A. 1965, M.A. 1973, Ph.D. 1976, Michigan State University.

Charles F. Kellers, 1968

*Professor of Physics*

B.A. 1953, Swarthmore College; Ph.D. 1960, Duke University.

Rauf A. Khan, 1976

*Professor of Accounting and Finance*

B.S. 1958, Montana State University; M.B.A. 1967, University of Montana; D.B.A. 1973, University of Colorado.

Brij B. Khare, 1968

*Professor of Political Science*

B.S. 1953, Agra, India; M.S. 1959, University of Toronto; M.A. 1963, Ph.D. 1968, University of Missouri, Columbia.

Nikolai E. Khokhlov, 1968

*Professor of Psychology*

M.A. 1967, Ph.D. 1968, Duke University.

Jeffrey C. King, 1985

*Assistant Professor of Philosophy*

B.A. 1979, Ph.D. 1985, University of California, San Diego.

Adria F. Klein, 1976

*Associate Professor of Education; Chair, Department of Teacher Education*

B.A. 1968, George Peabody College; M.A. 1970, West Virginia University; Ph.D. 1979, University of New Mexico.

## 440 / Faculty

Helene W. Koon, 1970

*Professor of English*

B.F.A. 1946, University of Iowa; M.A. 1948, Pasadena Playhouse; M.A. 1965, Immaculate Heart College; Ph.D. 1969, University of California, Los Angeles.

Janet L. Kottke, 1984

*Assistant Professor of Psychology*

B.A. 1978, Wartburg College; M.S. 1981, Iowa State University; Ph.D. 1984, Iowa State University.

Glen M. Kraig, 1986

*Lecturer in Education*

B.A. 1975, Wagner College; M.Ed. 1983, Ed.D. 1985, East Tennessee State University.

Larry L. Kramer, 1968

*Professor of English*

B.A. 1961, M.A. 1963, The Ohio State University; M.F.A. 1968, The University of Iowa.

Ellen L. Kronowitz, 1978

*Associate Professor of Education*

B.A. 1966, Queens College; M.A. 1969, Ed.M. 1974, Ed.D. 1976, Teachers College, Columbia University.

Hope Landrine, 1986

*Assistant Professor of Psychology*

B.A. 1975, Westminster College; Ph.D. 1983, University of Rhode Island.

Janice M. Layton, 1985

*Professor of Nursing; Chair, Department of Nursing*

B.S. 1964, M.S.N. 1965, Wayne State University; Ph.D. 1978, Michigan State University.

Robert A. Lee, 1968

*Professor of English*

B.A. 1961, University of California, Riverside; Ph.D. 1966, University of Oregon.

Steven M. Levy, 1983

*Associate Professor of Management*

B.A. 1967, University of Rochester; M.S. 1969, Cornell University; Ph.D. 1978, George Washington University.

Denis R. Lichtman, 1969

*Associate Professor of Mathematics*

B.A. 1959, University of Pittsburgh; M.A. 1963, Ph.D. 1968, University of Washington.

Donald B. Lindsey, 1973

*Professor of Criminal Justice*

B.S. 1970, M.S. 1971, Ph.D. 1973, University of Utah.

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*Professor of Art*

B.S. 1960, State University of New York; M.F.A. 1962, Southern Illinois University.

Marsha B. Liss, 1976

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B.A. 1971, Barnard College; Ph.D. 1976, State University of New York at Stony Brook.

Fook Fah Liu, 1970

*Professor of Computer Science*

B.Sc. 1956, Presidency College, India; M.S. 1983, University of Illinois; Ph.D. 1962, Purdue University.

Janice Loutzenhiser, 1976

*Associate Professor of Management*

B.A. 1970, University of Southern California; M.A. 1972, George Washington University; J.D. 1975, University of Virginia.

Joseph B. Lovell, 1981

*Lecturer in Management*

B.S. 1963, Drake University; M.B.A. 1966, Creighton University.

David J. Lutz, 1980

*Associate Professor of Psychology*

B.A. 1975, M.A. 1978, Ph.D. 1980, University of Kansas.

Loralee MacPike, 1978

*Professor of English*

B.A. 1960, Bryn Mawr College; M.A. 1970, California State University, Hayward; Ph.D. 1976, University of California, Los Angeles.

Ward M. McAfee, 1965

*Professor of History*

A.B. 1961, M.A. 1962, Ph.D. 1965, Stanford University.

John F. McDonnell, 1969

*Professor of Management Science*

B.S. 1955, Bowling Green State University; M.B.E. 1967, Ph.D. 1974, Claremont Graduate School.

Theodore R. McDowell, 1983

*Assistant Professor of Geography*

B.S. 1969, B.S. 1972, M.S. 1975, Brigham Young University; Ph.D. 1980, Oregon State University.

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*Associate Professor of Music*

B.M. 1977, Belmont College; M.M. 1979, D.M.A. 1983, Memphis State University.

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B.S. 1971, M.S. 1976, Loma Linda University.



## 442 / Faculty

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*Professor of Management*

B.S. 1972, M.A. 1974, University of California, Riverside; J.D. 1976, La Verne University; Ph.D. 1979, University of California, Riverside.

Dennis J. Mahoney, 1986

*Assistant Professor of Political Science*

B.A. 1970, Claremont Men's College; M.Sc. 1971, University of London; M.A. 1982, Ph.D. 1984, Claremont Graduate School.

Sarojam Mankau, 1968

*Professor of Biology, Chair, Department of Biology*

B.A. 1949, Women's Christian College, India; M.S. 1952, Ph.D. 1956, University of Illinois.

Kenneth A. Mantei, 1968

*Professor of Chemistry*

A.B. 1962, Pomona College; Ph.D. 1967, Indiana University.

Carolyn A. Martin, 1974

*Associate Professor of Physical Education*

B.S. 1968, Lincoln University; M.A. 1974, California State Polytechnic University, Pomona.

Lance A. Masters, 1981

*Assistant Professor of Marketing; Chair, Department of Marketing, Management Science and Information Management*

B.A. 1973, University of California, Riverside; M.B.A. 1977, California State College, San Bernardino; M.A. 1980, Ph.D. 1986, Claremont Graduate School.

Phyllis F. Maxey, 1984

*Assistant Professor of Education*

A.B. 1967, M.A.T. 1969, University of Illinois; Ph.D. 1980, Northwestern University.

E. Clark Mayo, 1967

*Professor of English*

B.A. 1960, Brown University; B.D. 1963, Union Theological Seminary; M.A. 1965, Ph.D. 1971, University of Chicago.

Susan Meisenhelder, 1982

*Associate Professor of English*

B.A. 1973, M.A. 1975, University of Florida; Ph.D. 1983, University of California, Riverside.

Thomas M. Meisenhelder, 1975

*Professor of Sociology*

B.A. 1968, Wake Forest University; M.A. 1972, Ph.D. 1975, University of Florida.

Josephine G. Mendoza, 1984

*Assistant Professor of Computer Science*

B.S. 1974, M.Eng. 1977, University of the Philippines; Ph.D. 1984, University of Illinois.

Dorothy L. Mettee, 1984

*Assistant Professor of Communication*

B.A. 1976, University of Colorado; Ph.D. 1984, University of Denver.

Junryo Miyashita, 1985

*Associate Professor of Computer Science*

B.A. 1974, Western Washington University; M.S. 1976, Oklahoma State University; Ph.D. 1981, University of South Florida.

Swarnalatha A. Moldanado, 1985

*Professor of Nursing*

B.S. 1965, Osmania University, India; M.N. 1970, University of Delhi, India; M.P.H. 1975, University of North Carolina; Ph.D. 1982, University of Illinois.

Clark Molstad, 1984

*Assistant Professor of Management*

B.A. 1970, California State University, Los Angeles; M.A. 1973, University of California, Los Angeles.

Kenton L. Monroe, 1965

*Professor of Psychology*

B.A. 1959, University of Oregon; M.S. 1963; Ph.D. 1964, Purdue University.

Thomas E. Moody, 1985

*Assistant Professor of Philosophy*

B.A. 1970, University of Wisconsin; Ph.D. 1982, University of Minnesota.

Arthur Moorefield, 1973

*Professor of Music; Chair, Department of Music*

B.M. 1950, Cincinnati Conservatory; M.A. 1958, New York University; Ph.D. 1965, University of California, Los Angeles.

Joseph R. Moran, 1972

*Professor of Art*

B.A. 1970, University of California, Riverside; M.F.A. 1972, Claremont Graduate School.

Richard L. Moss, 1973

*Professor of Economics*

B.A. 1963, University of Minnesota; M.A. 1970, Ph.D. 1973, University of New Mexico.

T. Patrick Mullen, 1981

*Associate Professor of Education*

B.A. 1960, Whittier College; M.A. 1970, Ph.D., 1971, University of Minnesota.

James L. Mulvihill, 1981

*Associate Professor of Geography*

B.A. 1968, M.A. 1972, State University of New York at Buffalo; Ph.D. 1976, Michigan State University.

John Nava, 1985

*Professor of Art; Gallery Director*

M.A. 1969, University of California, Santa Barbara; M.F.A. 1973, Villa Schifanoia, Graduate School of Fine Art, Florence, Italy.

## 444 / Faculty

Carolyn H. Neff, 1984

*Associate Professor of Music; Band Director*

B.A. 1969, M.A. 1970, California State University, Long Beach; D.M.A. 1974, University of Oregon.

Gary A. Negin, 1985

*Associate Professor of Education*

B.A. 1971, University of Notre Dame; M.Ed. 1974, Florida Atlantic University; Ph.D. 1977, University of Minnesota.

Arthur Nelson, 1963

*Director of Library*

B.A. 1950, St. Thomas College; M.A. 1951, M.A.L.S. 1956, University of Minnesota.

Frederick A. Newton, 1975

*Professor of Psychology*

B.S. 1967, St. Peter's College; M.S. 1970, Villanova University; Ph.D. 1975, University of Houston.

Ruth A. Norton, 1985

*Assistant Professor of Education*

B.A. 1969, University of Northern Iowa; M.S. 1984, Ed.D. 1985, Syracuse University.

David H. Null, 1977

*Assistant Professor of Health Science*

B.A. 1964, University of California, Riverside; M.A. 1970, California State University, Hayward; Ph.D. 1975, University of California, Berkeley.

Renate M. Nummela, 1978

*Associate Professor of Education*

B.A. 1965, University of Nevada; M.Ed. 1975, Ph.D. 1978, University of Florida.

Kathy L. O'Brien, 1984

*Assistant Professor of Education*

B.S. 1973, Pennsylvania State University; M.S. 1976, Ed.D. 1981, West Virginia University.

James S. Okon, 1981

*Associate Professor of Mathematics*

B.S. 1974, University of California, Riverside; M.S. 1976, Michigan State University; Ph.D. 1980, University of California, Riverside.

Walter C. Oliver, 1969

*Associate Professor of Spanish*

B.A. 1963, New Mexico State University; M.A. 1966, Ph.D. 1970, University of New Mexico.

Elinore H. Partridge, 1981

*Associate Professor of English*

B.A. 1958, University of Utah; M.A. 1963, New York University; Ph.D. 1970, University of California, Davis.

Pola N. Patterson, 1978

*Librarian; Head, Automation Services*

B.A. 1970, M.S. 1971, University of Illinois.

Cynthia L. Paxton, 1979

*Assistant Professor of Health Science*

B.S. 1973, California State University, Chico; M.A. 1974, San Diego State University; Ph.D. 1979, University of Oregon.

Clifford T. Paynton, 1968

*Professor of Sociology*

B.A. 1958, Seattle Pacific College; M.A. 1962, Ph.D. 1964, University of Washington.

Dennis M. Pederson, 1970

*Professor of Chemistry; Chair, Department of Chemistry*

B.S. 1962, University of Puget Sound; Ph.D. 1968, Purdue University.

Ronald K. Pendleton, 1981

*Associate Professor of Education*

B.A. 1964, California State College, Humboldt; M.A. 1978, California State University, Long Beach; Ph.D. 1981, Arizona State University.

Stuart M. Persell, 1967

*Professor of History*

B.A. 1962, University of California, Santa Barbara; M.A. 1963, Ph.D. 1969, Stanford University.

Ralph H. Petrucci, 1964

*Professor of Chemistry*

B.S. 1950, Union College; Ph.D. 1954, University of Wisconsin.

Thomas J. Pierce, 1976

*Professor of Economics*

B.A. 1971, La Salle College; M.A. 1975, Ph.D. 1976, University of Notre Dame.

James C. Pierson, 1971

*Professor of Anthropology*

B.A. 1965, M.A. 1969, Sacramento State College; Ph.D. 1972, Washington University.

David O. Porter, 1986

*Professor of Public Administration; Dean, School of Business and Public Administration*

B.S. 1963, M.A. 1965, University of Utah; Ph.D. 1970, Syracuse University.

Lee Porter, 1981

*Professor of Education; Dean of Extended Education and Off-Campus Programs*

B.S. 1958, State University of New York College at Oswego; M.A. 1960, Ed.D. 1969, Syracuse University.

Micheal C. Pounds, 1986

*Associate Professor of Communication*

B.A. 1974, University of Maryland; M.A. 1978, Ph.D. 1982, New York University.

Chetan Prakash, 1984

*Assistant Professor of Mathematics*

B.S. 1971, M.Sc. 1973, Delhi University; M.S. 1977, Ph.D. 1982, Cornell University.

## 446 / Faculty

Gregory L. Price, 1971

*Professor of Physical Education*

B.S. 1969, Fort Hays Kansas State College; M.S. 1972, California State College, Long Beach; Ed.D. 1978, Brigham Young University.

Reginald L. Price, 1978

*Professor of Physical Education; Athletic Director*

B.S. 1964, MacMurray College; M.A. 1967, The Ohio State University; Ed.D. 1973, Oklahoma State University.

Jerrold E. Pritchard, 1983

*Professor of Music; Associate Vice President, Academic Programs*

B.A. 1964, M.A. 1966, California State University, Sacramento; D.M.A. 1969, University of Washington.

Johnnie Ann Ralph, 1971

*Librarian; Head, Material Services*

B.A. 1967, M.A. 1969, University of California, Riverside; M.L.S. 1970, University of Kentucky.

Jennifer L. Randisi, 1983

*Associate Professor of English*

A.B. 1972, University of California, Berkeley; M.A. 1975, Ph.D. 1979, State University of New York, Stony Brook.

Nabil Y. Razzouk, 1982

*Professor of Marketing*

B.A. 1969, Middle East College, Lebanon; M.B.A. 1973, Andrews University; Ph.D. 1980, Arizona State University.

Dan C. Rinne, 1982

*Assistant Professor of Mathematics*

B.S. 1975, University of Missouri, Columbia; M.A., Ph.D. 1979, University of California, Santa Barbara.

J. Cordell Robinson, 1971

*Professor of History; Associate Vice President, Academic Personnel*

B.A. 1963, Columbia Union College; M.A. 1968, Ph.D. 1971, Indiana University.

Mike Rodriquez, 1985

*Lecturer in Political Science*

B.A. 1979, California State College, San Bernardino; M.A. 1983, University of Dallas.

James G. Rogers, 1974

*Professor of Management*

A.B. 1949, Yale University; M.S. 1963, M.A. 1970, Ph.D. 1974, University of California, Los Angeles.

C. E. Tapie Rohm, Jr., 1983

*Professor of Information Management*

B.S. 1973, M.A. 1974, Brigham Young University; Ph.D. 1977, Ohio University.

Nancy E. Rose, 1985

*Assistant Professor of Economics*

B.A. 1968, University of California, Berkeley; M.S.W. 1973, University of North Carolina.

Richard H. Rowland, 1975

*Professor of Geography; Chair, Department of Geography*

B.A. 1965, San Diego State University; Ph.D. 1971, Columbia University.

Amanda Sue Rudisill, 1969

*Professor of Theatre Arts*

B.S. 1964, Millersville State College; M.A. 1966, Pennsylvania State University; Ph.D. 1972, Northwestern University.

DeShea R. Rushing, 1985

*Lecturer in Management*

B.A. 1981, California State University, Long Beach; M.A. 1983, California State University, San Bernardino.

Beverly A. Ryan, 1985

*Senior Assistant Librarian*

B.A. 1979, California State University, Fullerton; M.S.L.S. 1981, University of Southern California.

Mireille G. Rydell, 1968

*Professor of French*

Licence 1950, University of Bordeaux; M.A. 1958, Ph.D. 1968, University of Minnesota.

Elisabeth K. Ryland, 1986

*Assistant Professor of Management*

B.A. 1965, University of Copenhagen, Denmark; M.A. 1965, M.B.A. 1980, Florida State University.

Judith M. Rymer, 1970

*Professor of Education; Executive Dean for University Relations*

B.S. in Ed. 1961, Miami University; M.A. 1966, University of Kansas; Ph.D. 1970, The Ohio State University.

Arthur I. Saltzman, 1984

*Associate Professor of Marketing*

B.S. 1960, Brooklyn College; M.S. 1966, Massachusetts Institute of Technology; Ph.D. 1982, University of California, Irvine.

John Sarli, 1983

*Assistant Professor of Mathematics*

A.B. 1974, Brown University; Ph.D. 1984, University of California, Santa Cruz.

Richard S. Saylor, 1968

*Professor of Music*

B.S. 1950, B.M. 1955, Ithaca College; M.M. 1958, University of Michigan; D.M.A. 1966, Stanford University.

Karen G. Schepp, 1986

*Visiting Associate Professor of Nursing*

B.S. 1965, University of North Dakota; M.N. 1967, University of Washington; Ph.D. 1985, University of Arizona.

## 448 / Faculty

### Gerald M. Scherba, 1962

*Professor of Biology*

B.S. 1950, M.S. 1952, Ph.D. 1955, University of Chicago.

### Kent M. Schofield, 1966

*Professor of History*

B.A. 1961, University of California, Riverside; M.A. 1962, Claremont Graduate School; Ph.D. 1966, University of California, Riverside.

### Peter R. Schroeder, 1967

*Professor of English; Chair, Department of English*

A.B. 1962, Stanford University; M.A. 1963, Ph.D. 1967, Harvard University.

### Andrew Schultz, 1985

*Assistant Professor of Education*

B.S. 1978, M.Ed. 1983, Ph.D. 1985, University of Nebraska.

### Mary A. Schultz, 1986

*Assistant Professor of Nursing*

B.S. 1979, University of Cincinnati; M.S.N. 1984, Case Western Reserve.

### John A. Scribner, 1978

*Lecturer in Accounting and Finance*

B.S. 1973, M.A. 1974, University of California, Riverside.

### Robert A. Senour, 1970

*Professor of Education; Director of Audiovisual Services*

B.A. 1957, Ohio State University; M.Ed. 1966, Ph.D. 1970, Wayne State University.

### David Shichor, 1976

*Professor of Criminal Justice*

B.A. 1962, Hebrew University; M.A. 1966, California State University, Los Angeles; Ph.D. 1970, University of Southern California.

### James C. Shuman, 1986

*Assistant Professor of Education*

B.A. 1967, Carleton College; M.S. 1978, Ed.D. 1983, West Virginia University.

### A. I. Clifford Singh, 1984

*Assistant Professor of Physical Education*

B.S. 1973, M.S. 1974, Western Illinois University; Ph.D. 1977, University of Colorado.

### Barbara Sirotnik, 1980

*Associate Professor of Management Science*

A.B., B.S. 1973, M.S. 1979, Ph.D. 1980, University of California, Riverside.

### William L. Slout, 1968

*Professor of Theatre Arts*

B.A. 1949, Michigan State University; M.S. 1950, Utah State University; Ph.D. 1970, University of California, Los Angeles.

Alexander Sokoloff, 1965

*Professor of Biology*

A.B. 1948, University of California, Los Angeles; Ph.D. 1954, University of Chicago.

Gordon E. Stanton, 1968

*Professor of Education*

B.A. 1948; M.A. 1952, Ed.D. 1967, University of California, Los Angeles.

Helena V. Stanton, 1977

*Associate Professor of Education*

B.A. 1955, University of California, Los Angeles; M.A. 1970, Ph.D. 1976, University of California, Riverside.

Robert G. Stein, 1967

*Professor of Mathematics; Chair, Department of Mathematics*

B.A. 1961, Harvard College; M.A.T. 1962, Wesleyan University; M.A. 1967, Dartmouth College; Ph.D. 1975, University of Texas.

Walter T. Stewart, Jr., 1984

*Associate Professor of Management Science*

B.A. 1976, M.A. 1979, Brigham Young University; Ph.D. 1984, Ohio University.

Darleen K. Stoner, 1984

*Assistant Professor of Education*

B.A. 1967, Washington State University; M.S. 1972, California State Polytechnic University, Pomona; Ph.D. 1981, Claremont Graduate School.

P. Richard Switzer, 1970

*Professor of French*

A.B. 1947, A.M. 1948, University of Chicago; Ph.D. 1955, University of California, Berkeley.

Edward C. Teyber, 1979

*Associate Professor of Psychology*

B.A. 1972, University of California, Los Angeles; M.A. 1974, Ph.D. 1977, Michigan State University.

James D. Thomas, 1968

*Professor of Political Science*

B.S.F.S. 1955, Georgetown University; M.S. 1961, Ph.D. 1965, Claremont Graduate School.

John Tibbals, 1968

*Librarian; Head, Patron Services*

B.A. 1965, University of California, Santa Barbara; M.S.L.S. 1966, University of Southern California.

Thomas C. Timmreck, 1985

*Associate Professor of Health Science*

B.S. 1971, Brigham Young University; M.Ed. 1972, Oregon State University; M.A. 1981, Northern Arizona University; Ph.D. 1976, University of Utah.

Javier Torner, 1985

*Assistant Professor of Physics*

B.S. 1978, J.P.M., Mexico; M.S. 1972, Ph.D. 1985, Illinois Institute of Technology.



## 450 / Faculty

Raymond J. Torres-Santos, 1986

*Assistant Professor of Music*

B.A. 1980, University of Puerto Rico; M.A. 1982, Ph.D. 1986, University of California, Los Angeles.

Mayo C. Toruno, 1983

*Assistant Professor of Economics*

B.A. 1974, B.A. 1975, M.A. 1976, California State University, Los Angeles; M.A. 1979, Ph.D. 1983, University of California, Riverside.

Michael Trubnick, 1982

*Associate Professor of Accounting and Finance*

B.S.B.A. 1969, Northern Illinois University; M.B.A. 1980, DePaul University.

Mohamad T. Vaziri, 1986

*Professor of Accounting and Finance; Chair, Department of Accounting and Finance*

B.S. 1972, Pennsylvania State University—Pahavi; M.B.A. 1974, Central State University; Ph.D. 1979, University of Oklahoma.

J. Paul Vicknair, 1982

*Associate Professor of Mathematics*

B.S. 1974, M.S. 1978, Ph.D. 1982, Louisiana State University.

Steven R. Wagner, 1974

*Associate Professor of Education*

B.A. 1964, San Jose State University; M.A. 1968, San Fernando Valley State College; Ph.D. 1973, Claremont Graduate School.

Carl P. Wagoner, 1969

*Professor of Criminal Justice*

B.S. 1960, Ball State University; M.A. 1964, Ph.D. 1971, Indiana University.

William Warehall, 1973

*Professor of Art*

B.F.A. 1968, Wayne State University; M.F.A. 1971, University of Wisconsin.

Lynda W. Warren, 1973

*Professor of Psychology*

B.A. 1964, College of William and Mary; Ph.D. 1970, University of Minnesota.

Del LaVerne Watson, 1981

*Professor of Nursing*

B.S.N. 1948, Union College; M.S. 1956, University of Colorado; M.Ed. 1969, Ed.D. 1980, Columbia University.

George A. Weiny, 1967

*Professor of Physical Education*

B.A. 1957, Iowa Wesleyan College; M.A. 1962, State University of Iowa.

Michael G. Weiss, 1982

*Assistant Professor of Psychology*

B.A. 1974, University of California, San Diego; M.S. 1978, University of Southern California; Ph.D. 1983, University of Florida.

Daniel S. Whitaker, 1985

*Assistant Professor of Foreign Languages*

B.A. 1971, Wake Forest University; M.A. 1973, Ph.D. 1985, University of Wisconsin.

Edward M. White, 1965

*Professor of English*

B.A. 1955, New York University; M.A. 1956, Ph.D. 1960, Harvard University.

Peter D. Williams, 1983

*Assistant Professor of Mathematics*

B.S. 1979, Ph.D. 1983, University of St. Andrews, Scotland.

Ruth C. Wilson, 1971

*Professor of Biology*

B.A. 1961, M.A. 1964, California State College, Los Angeles; Ph.D. 1971, Claremont Graduate School.

Alvin Wolf, 1975

*Professor of Education*

B.S. 1957, M.A. 1964, University of San Francisco; Ph.D. 1972, University of California, Berkeley.

Don Woodford, 1972

*Professor of Art*

B.A. 1963, Cornell College; M.A. 1964, Illinois State University; M.F.A. 1965, University of Wisconsin.

Thomas E. Woods, 1981

*Lecturer in Education*

B.A. 1948, University of California, Berkeley; M.S. 1952, San Francisco State University; Ed.D. 1957, Stanford University.

Tong L. Yu, 1986

*Assistant Professor of Computer Science*

B.S. 1977, Chinese University of Hong Kong; M.S.E. 1982, Ph.D. 1986, Johns Hopkins University.

Abdulkeni Zekeria, 1985

*Lecturer in Mathematics*

B.S. 1974, University of Asmara, Ethiopia; M.S. 1977, University of Wyoming; Ph.D. 1984, Howard University.

Donna M. Ziebarth, 1977

*Associate Professor of Nursing*

B.S.N. 1959, P.H.N. 1960, Mount St. Mary's College; M.S. 1977, California State University, Los Angeles.

## EMERITUS FACULTY

Robert G. Fisk, Professor of Education, Emeritus, 1973  
 Margaret K. Gibbs, Professor of Administration, Emeritus, 1980  
 John E. Hafstrom, Professor of Mathematics, Emeritus, 1979  
 Robert R. Harrison, Professor of Art, Emeritus, 1972  
 Charles V. Hartung, Associate Professor of English, Emeritus, 1977  
 Harold A. Jambor, Lecturer in Sociology, Emeritus, 1980  
 Dorothy Johnson, Professor of Nursing, Emeritus, 1983  
 Nathan Kravetz, Professor of Education, Emeritus, 1985  
 Bernhardt L. Mortensen, Associate Professor of Sociology, Emeritus, 1978  
 C. Michael O'Gara, Professor of Physical Education, Emeritus, 1977  
 Mary G. Patterson, Professor of Nursing, Emeritus, 1985  
 John M. Pfau, Professor of History; President, Emeritus, 1982  
 Robert A. Smith, Professor of History, Emeritus, 1982  
 Joseph K. Thomas, Vice President for Administration, Emeritus, 1982  
 Elton N. Thompson, Professor of Education, Emeritus, 1983  
 Robert L. West, Professor of Education, Emeritus, 1980

## SPECIAL APPOINTMENTS

Phyllis Benson, 1970

*Studio Music Instructor*  
 B.M. 1951, Wheaton College.

Carol Cheek, 1981

*Studio Music Instructor*  
 B.A. 1972, Pacific Union College; M.M. 1974, University of Southern California.

Dennis Dockstader, 1978

*Studio Music Instructor*  
 B.A. 1973, California State College, San Bernardino.

Karlin Eby, 1976

*Studio Music Instructor*  
 B.A. 1957, University of Washington; M.M. 1963, University of Oregon.

Sandra Fenton, 1983

*Studio Music Instructor*  
 B.A. 1976, Pomona College.

I. Marie Gibson, 1986

*Studio Music Instructor*  
 B.A. 1945, San Francisco State College.

Herbert Iverson, 1976

*Studio Music Instructor*

B.M. 1958, M.M. 1961, University of Redlands.

Lawrence Johansen, 1976

*Studio Music Instructor*

B.A. 1967, Fresno State University; M.M. 1972, University of Southern California.

Paul L. Kardos, 1984

*Studio Music Instructor*

B.S. 1969, M.Ed. 1972, University of Nevada.

Mary L. Keays, 1985

*Studio Music Instructor*

B.S. 1972, University of Illinois at Urbana-Champaign.

Anthony J. Lupica, 1984

*Studio Music Instructor*

B.M. 1981, North Carolina School of the Arts; M.M. 1983, University of Southern California.

Catherine Graff MacLaughlin, 1976

*Studio Music Instructor*

B.A. 1962, University of California, Berkeley.

Albert Rice, 1982

*Studio Music Instructor*

B.A. 1974, California State University, Fullerton; M.A. 1977, Claremont Graduate School.

Victoria Shapiro, 1967

*Studio Music Instructor*

Diploma 1947, B.S. in Viola 1949, Juilliard School of Music.

Armen Turadian, 1977

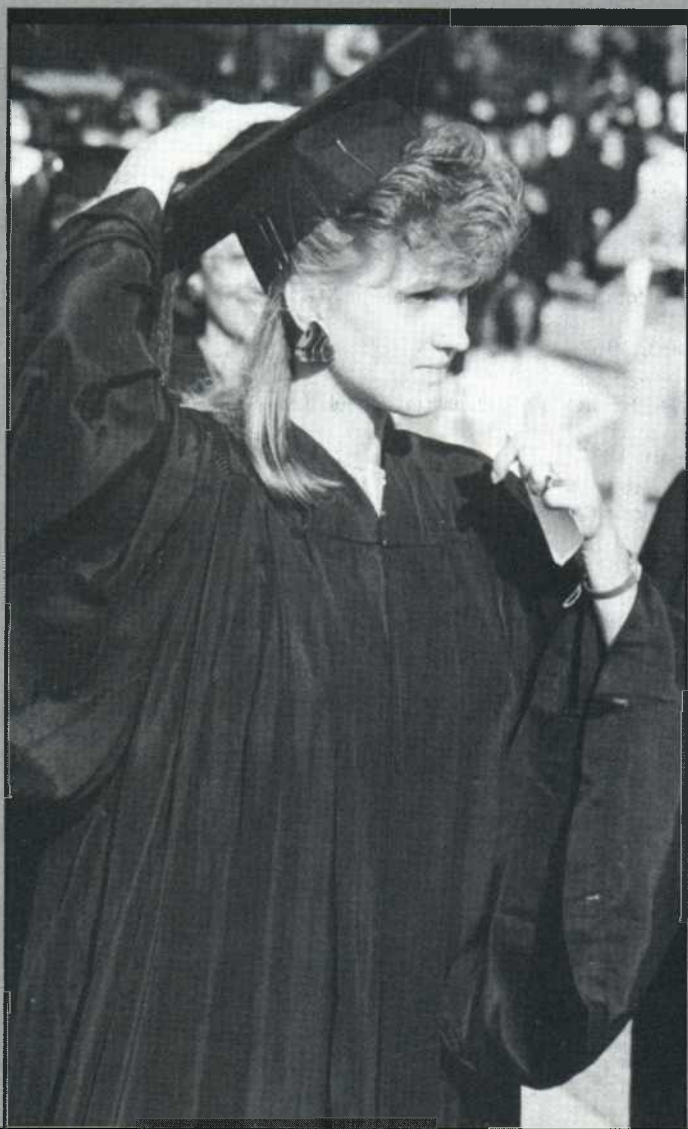
*Studio Music Instructor*

B.M. 1949, Oberlin College; M.M. 1951, University of Southern California.

Philip D. West, 1981

*Studio Music Instructor*

B.A. 1973, M.A. 1980, California State University, San Bernardino.



## APPENDIX

### Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from Ted Krug, director of financial aid, Room 143, Student Services Building, phone 887-7741:

1. Student financial assistance programs available to students who enroll at California State University, San Bernardino;
2. The method by which such assistance is distributed among recipients who enroll at California State University, San Bernardino;
3. The means, including forms, by which application for student financial assistance is made; the requirements for accurately preparing such applications;
4. The rights and responsibilities of students receiving financial assistance; and
5. The standards the student must maintain to be considered to be making satisfactory progress for the purpose of establishing and maintaining eligibility for financial assistance.

The following information concerning the cost of attending California State University, San Bernardino is available from Ted Krug, director of financial aid, Room 143, Student Services Building, phone 887-7741.

1. Fees and tuition (where applicable);
2. Estimated costs of books and supplies;
3. Estimates of typical student room and board costs or typical commuting costs; and
4. Any additional costs of the program in which the student is enrolled or expresses a specific interest.

Information concerning the refund policy of California State University, San Bernardino for the return of unearned tuition and fees or other refundable portions of costs is available from Don Saponetti, accounting officer, Room 115, Administration Building, phone 887-7501.

Information concerning the academic programs of California State University, San Bernardino may be obtained from Dr. Jerrold E. Pritchard, associate vice president, academic programs, Room 196, Administration Building, phone 887-7521. This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory and other physical plant facilities which relate to the academic program;
3. The faculty and other instructional personnel;
4. Data regarding student retention at California State University, San Bernardino and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses interest; and
5. The names of associations, agencies, or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval, or licensing.

Information regarding special facilities and services available to handicapped students may be obtained from Dr. Theron Pace, director of Services to Students with Disabilities, Room 101, Pfau Library Building, phone 887-7662.

### Determination of Residence For Nonresident Tuition Purposes

The campus Admissions Office determines the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in Education Code Sections 68000-68090, 68121, 68123, 68124, 89705-89707.5, and 90408, and in Title 5 of the California Administrative Code, Sections 41900-41912. A copy of the statutes and regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining

## 456 / Appendix

active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, the unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of a minor cannot be changed by the minor or the minor's guardian, so long as the minor's parents are living.

A married person may establish his or her residence, independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire concerning financial independence.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term.

Residence determination dates are:

Quarter term campuses		Semester term campuses	
Fall	September 20	Fall	September 20
Winter	January 5	Winter	January 5 (Stanislaus only)
Spring	April 1	Spring	January 25
Summer	July 1		

Questions regarding residence determination dates should be directed to the campus Admissions Office which can give the residence determination date for the term for which the student is registering.

There are exceptions for nonresident tuition, including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student who remained was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.
2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date and entirely self-supporting for that period of time.
3. Persons below the age of 19 who have lived with and have been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.
4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year. The exception, once attained, is not affected by retirement or transfer of the military person outside the state.
5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
6. Certain credentialed, full-time employees of California school districts.
7. Full-time State University employees and their children and spouses. State employees assigned to work outside the state and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
8. Certain exchange students.
9. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

Any student, following a final campus decision on his or her residence classification, only may make written appeal to: The California State University, Office of General Counsel, 400 Golden Shore, Long Beach, CA 90802-4275, within 120 calendar days of notification of the final decision on campus of the classification. The Office of General Counsel may make a decision on the issue, or it may send the matter back to the campus for further review. Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Administrative Code. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admission Office. Applications for a change in classification with respect to a previous term are not accepted.

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes and in the regulations between the time this catalog is published and the relevant residence determination date.

## **The Consortium of The California State University**

The Consortium of the CSU—"The 1,000-Mile Campus"—is a separate, fully accredited, degree-granting institution of the CSU. It draws on the combined resources of the 19 campuses to offer external statewide and regional degree, certificate and credential programs.

The Consortium was established in 1973 to meet the needs of adults who find it difficult or impossible to participate in regular on-campus programs. Instruction is thus provided students in convenient places at convenient times. Currently, programs are offered in more than 100 sites throughout California.

Full- and part-time CSU faculty, as well as qualified experienced practitioners, go where the students are, or provide opportunities for individualized study. Programs can be tailored to meet the specific needs of employees in business, industry, education or government.

Consortium programs are upper-division or graduate level. All courses offer residence credit leading to bachelor's or master's degrees. Credit and course work are transferable statewide. Programs are financed by student fees.

Academic policy for the Consortium is recommended by the Consortium Advisory Committee, a committee of the Academic Senate of the CSU. Degrees or certificates are awarded by the Consortium in the name of the Board of Trustees of the CSU. The Consortium is accredited by the Western Association of Schools and Colleges.

For more information contact: The Consortium of The California State University, 6300 State University Drive, Long Beach, CA 90815-4666; (213) 498-5690.

The statewide Admissions and Records Office may be reached by dialing the following numbers: Los Angeles and Long Beach areas (213) 498-4119; all other areas in California toll free (800) 352-7517.



Eligibility Index

The eligibility index is the combination of the high school grade-point average and the score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For this purpose, the university computes the grade-point average on the final three years of high school studies, excluding physical education and military science, and uses bonus points for certain honors courses. CSU may offer early, provisional admission based on work completed through the junior year of high school and planned for the senior year.

Students may calculate the index by multiplying their grade-point average by 800 and adding their total score on the SAT. Or, if they took the ACT, multiply their grade-point average by 200 and add ten times the composite score from the ACT. California high school graduates (or legal residents of California for tuition purposes) need a minimum index of 2994 using the SAT or 722 using the ACT; the table below shows the combinations of test scores and averages required. Students who neither graduated from a California high school nor are a resident of California for tuition purposes need a minimum index of 3402 (SAT) or 822 (ACT).

Applicants with grade-point averages above 3.10 (3.60 for nonresidents) are exempt from the test requirement.

Eligibility Index Table for  
California High School Graduates or Residents of California

GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score
Above 3.10 qualifies with any score			2.74	18	810	2.36	25	1110
			2.73	18	810	2.35	26	1120
3.10	11	520	2.72	18	820	2.34	26	1130
3.09	11	530	2.71	18	830	2.33	26	1130
3.08	11	530	2.70	19	840	2.32	26	1140
3.07	11	540	2.69	19	850	2.31	26	1150
3.06	11	550	2.68	19	850	2.30	27	1160
3.05	12	560	2.67	19	860	2.29	27	1170
3.04	12	570	2.66	19	870	2.28	27	1170
3.03	12	570	2.65	20	880	2.27	27	1180
3.02	12	580	2.64	20	890	2.26	27	1190
3.01	12	590	2.63	20	890	2.25	28	1200
3.00	13	600	2.62	20	900	2.24	28	1210
2.99	13	610	2.61	20	910	2.23	28	1210
2.98	13	610	2.60	21	920	2.22	28	1220
2.97	13	620	2.59	21	930	2.21	28	1230
2.96	13	630	2.58	21	930	2.20	29	1240
2.95	14	640	2.57	21	940	2.19	29	1250
2.94	14	650	2.56	21	950	2.18	29	1250
2.93	14	650	2.55	22	960	2.17	29	1260
2.92	14	660	2.54	22	970	2.16	29	1270
2.91	14	670	2.53	22	970	2.15	30	1280
2.90	15	680	2.52	22	980	2.14	30	1290
2.89	15	690	2.51	22	990	2.13	30	1290
2.88	15	690	2.50	23	1000	2.12	30	1300
2.87	15	700	2.49	23	1010	2.11	30	1310
2.86	15	710	2.48	23	1010	2.10	31	1320
2.85	16	720	2.47	23	1020	2.09	31	1330
2.84	16	730	2.46	23	1030	2.08	31	1330
2.83	16	730	2.45	24	1040	2.07	31	1340
2.82	16	740	2.44	24	1050	2.06	31	1350
2.81	16	750	2.43	24	1050	2.05	32	1360
2.80	17	760	2.42	24	1060	2.04	32	1370
2.79	17	770	2.41	24	1070	2.03	32	1370
2.78	17	770	2.40	25	1080	2.02	32	1380
2.77	17	780	2.39	25	1090	2.01	32	1390
2.76	17	790	2.38	25	1090	2.00	33	1400
2.75	18	800	2.37	25	1100	Below 2.00 does not qualify for regular admission		

## Student Discipline Code

Inappropriate conduct by students or applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Administrative Code. These sections are as follows:

41301. Expulsion, Suspension and Probation of Students. Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus related:
- (a) Cheating or plagiarism in connection with an academic program at a campus.
  - (b) Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus.
  - (c) Misrepresentation of oneself or of an organization to be an agent of a campus.
  - (d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
  - (e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
  - (f) Theft of, or non-accidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
  - (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
  - (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
  - (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a college campus function without prior authorization of the campus president.
  - (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
  - (k) Abusive behavior directed toward, or hazing of, a member of the campus community.
  - (l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.
  - (m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.
  - (n) For purposes of this Article, the following terms are defined:
    - (1) The term "member of the campus community" is defined as meaning California State University Trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.
    - (2) The term "campus property" includes:
      - (A) real or personal property in the possession of, or under the control of, the Board of Trustees of the California State University, and
      - (B) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
    - (3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a black-jack, sling shot, billy, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
    - (4) The term "behavior" includes conduct and expression.
    - (5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger or physical or emotional harm to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
  - (o) This Section is not adopted pursuant to Education Code Section 89031.
  - (p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

41302. Disposition of fees: Campus Emergency; Interim Suspension. The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such students for the semester, quarter or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

41303. Conduct by Applicants for Admission. Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any person who, while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

41304. Student Disciplinary Procedures for the California State University. The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302, and for qualified admission or denial of admission under Section 41303; the authority of the campus President in such matters; conduct related determinations of financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor shall report to the Board actions taken under this section.

## **Nondiscrimination Policy**

### **Sex**

The California State University does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by California State University, San Bernardino. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of California State University, San Bernardino may be referred to Dale T. West, personnel officer, or Dr. J. Cordell Robinson, associate vice president, academic personnel, the campus officers assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office of Civil Rights, Region 9, 221 Main Street, 10th Floor, San Francisco, CA 94105.

### **Handicap**

The California State University does not discriminate on the basis of handicap in admission or access to, or treatment or employment in, its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder prohibit such discrimination. Dr. J. Cordell Robinson, associate vice president, academic personnel, and Dr. Peter Wilson, the dean of students, have been designated to coordinate the efforts of California State University, San Bernardino to comply with the Act in its implementing regulations. Inquiries concerning compliance may be addressed to these persons at 5500 University Parkway, San Bernardino, CA 92407, (714) 887-7201.

### **Race, Color or National Origin**

The California State University complies with the requirements of Title VI of the Civil Rights Act of 1964 and the regulations adopted thereunder. No person shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program of The California State University.

### **Sexual Harassment**

It is the policy of California State University, San Bernardino to maintain a working and learning environment free from sexual harassment of its students, employees and those who apply for student and employee status. Questions regarding sexual harassment should be addressed to Dale T. West, personnel officer, or Dr. J. Cordell Robinson, associate vice president, academic personnel.

## Average Annual Costs of Education and Sources of Funds Per Full-Time Equivalent Student

The 19 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total state appropriation to the CSU for 1986-87, including capital outlay and employee compensation increases is \$1,500,409,000. The total cost of education for CSU, however, is \$1,649,146,315 which provides support for a projected 247,885 full-time equivalent (FTE) students.

The total cost of education in the CSU is defined as the expenditures for current operations, including payments made to the students in the form of financial aid, and all fully reimbursed programs contained in state appropriations, but excluding capital outlay appropriations. The average cost of education is determined by dividing the total cost by the total FTEs. The average cost is further differentiated into three categories: state support (the state appropriation, excluding capital outlay), student fee support, and support from other sources (including federal funds).

Thus, excluding costs which relate to capital outlay (i.e., building amortization), the average cost of education per FTE student is \$6,654. Of this amount, the average student fee support per FTE is \$872. The calculation for this latter amount includes the amount paid by nonresident students.

SOURCE OF FUNDS AND AVERAGE COSTS FOR 1986-87 CSU BUDGET  
(Projected enrollment: 247,855 FTE)

	Amount	Average Cost Per Student (FTE) <sup>a</sup>	Percentage
Total cost of education.....	\$1,649,146,315 <sup>b</sup>	\$6,654	100.0%
State Appropriation.....	1,389,847,000 <sup>c</sup>	5,607	84.3%
Student fee support.....	216,047,708	872 <sup>d</sup>	13.1%
Support from other sources.....	43,251,607	175	2.6%

<sup>a</sup> For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load equivalent to 15 units per term. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

<sup>b</sup> The total cost of education does not include the amount related to lottery and the capital investment of the CSU. The estimated replacement cost of all the system's permanent facilities and equipment on the 19 campuses is currently valued at \$5.3 billion, excluding the cost of land.

<sup>c</sup> This figure does not include the capital outlay appropriation of \$110,562,000.

<sup>d</sup> The average costs paid by a student include the state university fee, student services fee, application fee, catalog fee, and nonresident tuition. Individual students may pay less than \$872 depending on whether they are part-time, full-time, resident or nonresident students.

## Refund of Fees

Details concerning fees which may be refunded, the circumstances under which fees may be refunded and the appropriate procedure to be followed in seeking refunds may be obtained by consulting Section 41803 (parking fees), 41913 (nonresident tuition), 42019 (housing charges) and 41802 (all other fees) of Title 5, California Administrative Code. In all cases it is important to act quickly in applying for a refund. Information concerning any aspect of the refund of fees may be obtained from the Business Office.

## Procedure for Establishment or Abolishment of Student Body Fee

The law governing The California State University provides that a student body fee may be established by student referendum with the approval of two-thirds of those students voting. The student body fee was established at California State College, San Bernardino by student referendum on February 15, 1966. The same fee can be abolished by a similar two-thirds approval of students voting on a referendum called for by a petition signed by 10% of the regularly enrolled students (Education Code, Section 89300). The level of the fee is set by the chancellor. An increase in the student body fee may be approved by the chancellor only following a referendum on the fee increase approved by a majority of students voting. Student body fees support a variety of cultural and recreational programs, child care centers and special student support programs.

## Privacy Rights of Students in Education Records

The federal Family Education Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (34 C.F.R. 99) and California Education Code Section 67100 et seq., set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern access to students records maintained by the campus, and the release of such records. In brief, the law provides that the campus must provide students access to records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate. The right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at the Dean of Students Office. Among the types of information included in the campus statement of policies and procedures are: 1) the types of student records and the information contained therein; 2) the official responsible for the maintenance of each type of record; 3) the location of access lists which indicate persons requesting or receiving information from the record; 4) policies for reviewing and expunging records; 5) the access rights of students records; 6) the procedures for challenging the content of student records; 7) the cost which will be charged for reproducing copies of records, and 8) the right of the student to file a complaint with the Department of Education. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), U.S. Department of Education, 330 C St., Room 4511, Washington, D.C. 20202.

The campus is authorized under the act to release "directory information" concerning students. Directory information includes the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying information which the student requests not to be released. Written objections should be sent to the Dean of Students Office.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the campus' academic, administrative or service functions and who have reason for using student records connected with their campus or other related academic responsibilities.

## Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this catalog, students and others who use this catalog should note that laws, rules and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of The California State University, by the chancellor or designee of The California State University, or by the president or designee of the institution. Further, it is not possible in a publication of this size to include all of the rules, policies and other information which pertain to the student, the institution and The California State University. More current or complete information may be obtained from the appropriate department, school or administrative office.

Nothing in this catalog shall be construed, operate as, or have the effect of an abridgement or a limitation of any rights, powers or privileges of the Board of Trustees of The California State University, the chancellor of The California State University or the president of the campus. The trustees, the chancellor and the president are authorized by law to adopt, amend or repeal rules and policies which apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and the institution or The California State University. The relationship of the student to the institution is one governed by statute, rules and policy adopted by the Legislature, the trustees, the chancellor, the president and their duly authorized designees.

## INDEX

- Absence, leave of 70
- Academic course load 66, 96
- Academic disqualification 75
- Academic probation 74
- Academic probation, admission on 56
- Academic program 19
- Academic regulations 65
- Academic renewal 76
- Academic schools 129
- Academic support services 29
- Accelerated progress 66
- Access to records 77, 462
- Accounting 131, 134
- Accounting certificate 103
- Accreditation 20
- Activities 33
- Adapted physical education credential 203, 212, 365
- Adding classes 69
- Administration, B.A., B.S. 134, 135
- Administration, M.B.A. 137
- Administration, M.P.A. 140
- Administrative data processing 135
- Administrative officers 13
- Administrative services credential 203, 212
- Admission to the university 45
  - Admission as adult 52
  - Admission as an auditor 55
  - Admission as a freshman 45, 47
  - Admission as an undergraduate transfer student 49
  - Admission, Fall 1988 48
  - Admission of foreign students 52
  - Admission of former students 53
  - Admission of graduate students 46, 91, 92
  - Admission of high school students 53
  - Admission of nonresidents 47
  - Admission of previously disqualified students 56
  - Admission on academic probation 56
  - Admission, provisional 50
  - Admission to summer session 56, 99
  - Admission to teaching credential program 55
- Advanced placement 55
- Advising center 30
- Advisor, faculty 66
- Advisory Board 12
- Afternoon classes 59
- Aging 295
- Alumni association 41
- American College Tests (ACT) 50
- American culture and language program 127
- American studies, B.A. 145
- Anthropology, B.A. 148
- Application acknowledgment 47
- Application filing dates 47
- Application procedure 45
- Applied gerontology certificate 110
- Applied music 342
- Art, B.A. 153
- Athletics 34
- Attendance 69
- Auditing, academic specialty 135
- Auditing classes 55, 69
- Baccalaureate degree programs 20
- Bilingual/cross-cultural certificate 104
- Bilingual/cross-cultural option, M.A. 218
- Bilingual/cross-cultural specialist credential 203, 213
- Bilingual/cross-cultural studies 160
- Biology, B.A., B.S. 162
- Biology, M.S. 163
- Board of Trustees 10
- Bookstore 41
- Business administration 134
- Business economics 134
- Business skills for artist certificate program 105

## 464 / Index

- Cafeteria 41
- Calendar 4
- California State University 7
- Campus police 40
- Campus tours 26
- Career placement 35
- Certificate programs 103
- Challenge of courses 67
- Chancellor, office of 11
- Change in graduate program 97
- Change of major 76
- Chemistry, B.A., B.S. 173
- Child development 295
- Children's center 41
- Children's theatre, certificate 105
- Class attendance regulations 69
- Class level 65
- Class scheduling 24
- Class size 19
- Classified graduate standing 93
- Classified postbaccalaureate standing 93
- CLEP credit 54
- Coachella Valley Center 22
- College entrance examinations 50, 54
- College preparatory requirements 49
- Common admissions procedures 45
- Commons 41
- Communication, B.A. 177
- Communication skills certificate 105
- Community college credits 54
- Community mental health certificate 106
- Comprehensive examinations 22, 67
- Computer center 23
- Computer programming certificate 107
- Computer science, B.S. 185
- Concurrent enrollment 68, 97
- Conditionally classified graduate standing 93
- Consortium of CSU 457
- Continuing education (see extended education) 125
- Cooperative education 22
- Correspondence courses, credit for 55
- Costs, estimated 63, 455
- Costs, systemwide 461
- Counseling, academic 66
- Counseling, personal 29
- Counselor education, M.A. Option 220
- Course credits 130
- Course loads 66
- Course numbering system 129
- Credential programs 203
- Credit by examination 67, 98
- Credit for comprehensive examinations 67
- Credit for extension or correspondence courses 55, 125
- Credit for military service 55
- Credit/no credit policy 73
- Credit, postbaccalaureate for seniors 76
- Credit summary 54
- Credit, transfer of 54
- Criminal justice, B.A. 190
- Criminal justice, certificate program 107
- Criminal justice, M.A. 192
- Curriculum 129
- Data processing 135
- Dean of students 40
- Dean's list 86
- Debts, student 63
- Degree completion programs for part-time students 59
- Degree programs offered 20
- Degree requirements, second B.A. 86
- Degree requirements, undergraduate 81
- Dentistry 87
- Departmental honors 86
- Desert studies center 25
- Designated subjects teaching credential 203, 211, 216
- Determination of residency 56, 455
- Disabled student services 40
- Disciplinary actions 459
- Dismissal 74
- Disqualification 74
- Disqualified students, readmission of 56
- Dormitories 33
- Drama (see theatre arts) 419
- Dropping courses 69
- Dual major (see second BA) 86

- Earth science 197
- Economics, B.A. 199
- Education 203
- Education, M.A. 217
- Education of gifted, certificate program 108
- Educational computing, certificate 108
- Educational opportunity program 29
- Educational technology, certificate program 108
- Election of graduation requirements 76, 97
- Elementary education, M.A. 221
- Eligibility index 47, 458
- English, B.A. 248
- English composition, M.A. 249
- English, M.A. option in education 229
- English placement test 50, 84
- English requirement 49
- English translators, certificate program 109, 110
- Enrollment at any other institution (see concurrent enrollment) 68, 97
- Enrollment limitations 100
- Entrance examination 50
- Entry-level mathematics requirement 50, 84
- Environmental studies, B.A. 257
- Ethnic studies 261, 407
- Evaluation of transcripts (see transfer of credit) 54
- Evening classes 59
- Evening office 59
- Examination, credit by 67, 98
- Examinations, final 70
- Expenses 61, 62, 63
- Extended education 125
- Extension courses, credit for 55, 125
  
- Facilities 23
- Faculty 429
- Faculty advisor 30, 66
- Faculty office hours 20
- Fees 61
- Filing dates 47
- Final examinations 70
- Finance 134, 264
  
- Financial aid 35, 39, 455
- Financial management certificate 109
- Foods and nutrition, B.S. 267
- Foreign language cooperative program 269
- Foreign languages, department of 269
- Foreign student advisor 38
- Foreign students, admission of 52
- Former students, admission of 53
- Foundation of the university 25
- French, B.A. 271
- French/English translators certificate 109
- Freshmen, admission of 47
- Full-term course defined 130
- Full-time student course load 66
  
- General business, certificate 110
- General education requirements 81
- Geography, B.A. 274
- Geology 197
- German/English translators certificate 110
- German, minor 277
- Gerontology certificate 110
- Gifted, certificate program 108
- Grade reports 71
- Grades for withdrawal 69, 72
- Grading system 71
- Graduate admissions 46, 91
- Graduate course load 66
- Graduate degree programs 21, 91
- Graduate scholarship standards 74, 96
- Graduation requirement check 83, 97
- Graduation requirement in writing 85
- Graduation requirements 76, 81, 94
- Graphic design 154
- Grievance procedures (see dean of students) 41, 71, 96
  
- Hardship petitions 47
- Health center 40
- Health insurance 40
- Health science, B.S. 279



## 466 / Index

- Health service administration and planning certificate 111
- Health services credential 203, 213
- High school preparation recommended 49
- High school-university program 53
- Hispanic media 180
- History, B.A. 288
- History, constitution and government requirement 85
- History, M.A. option 229
- Honors 86
- Honors courses 50
- Housing 33
- Human development, B.A. 294
- Humanities, B.A. 298
- Human resources management certificate 112
- Human services, B.A. 303
  
- Impacted programs 45
- Incomplete grade 72
- Independent study 22
- Industrial technology, B.S. 305
- Information management 134, 308
- Information management certificate 112
- Inservice education 126
- Insurance programs 40
- Intercollegiate athletics 34
- Interdisciplinary studies 311
- Internal auditing 135
- International programs 24
- International relations certificate 113
- International students 38, 52
- Intramural program (see Recreational sports) 34
  
- Junior (community) college credits transferable 54
- Late day classes 59
- Late registration 69
- Latin American studies certificate 113
- Law 88
- Learning center 29
- Learning handicapped credential 215
- Leave of absence 70
- Liberal studies, B.A. 313
- Library 23
- Loan funds 35
  
- Local government planning certificate 114
  
- Major fields of study 20, 129
- Management 135, 320
- Management accounting 135
- Management science 135, 324
- Marketing 135, 326
- Marketing management certificate 114
- Master's degrees in administration 137, 140
- Master's degree in biology 163
- Master's degree in criminal justice 192
- Master's degree in education 203
- Master's degree in English composition 249
- Master's degree in national security studies 345
- Master's degrees in psychology 380, 382
- Master's degree in rehabilitation counseling 395
- Master's degree in special education 231
- Master's degree in special major 417
- Mathematics, B.A., B.S. 329
- Mathematics requirement, entry level 50, 84
- Measles and Rubella immunizations, proof of 52
- Medicine 87
- Military science 335
- Military science certificate 115
- Military service credit 55
- Multiple subjects credentials 204, 206
- Museum studies 149
- Museum studies certificate 115
- Music, B.A. 337
  
- National security studies, M.A. 345
- National student exchange program 25
- Natural sciences 350
- Nondiscrimination 460
- Nontraditional grading policy 73
- Numbering system of courses 129
- Nursing, B.S. 352

- Occupational safety and health certificate 116
- Open university 126
- Overloads 66
- Overseas programs 24
- Paralegal studies 358
- Paralegal studies certificate 117
- Parking fees 62
- Part-time students 59
- Pattee, Alan, scholarships 62
- Personal counseling 29
- Pharmacy 87
- Phi Kappa Phi 20
- Philosophy, B.A. 361
- Photography 153
- Physical education, B.S. 364
- Physical education requirement 81, 365
- Physics, B.A., B.S. 370
- Placement service 35
- Plagiarism 76
- Political science, B.A. 374
- Postbaccalaureate admissions 46, 92
- Postbaccalaureate credit for seniors 76, 98
- Prelaw minor 375
- Preprofessional programs 87
  - Dentistry 87
  - Law 88
  - Medicine 87
  - Pharmacy 87
  - Veterinary medicine 87
- Privacy rights 462
- Probation 74
- Probation, admission on 56
- Provisional admission 50
- Psychology, B.A. 379
- Psychology, M.A., M.S. 380, 382
- Public accounting 135
- Public administration 135, 136, 140, 392
- Public safety (Campus Police) 40
- Pupil personnel services teaching credential 203, 214
- Quarter-hour credit comparisons 130
- Reading, M.A. 224
- Reading for the classroom teacher certificate 117
- Reading specialist credential 203, 214
- Readmission of disqualified students 56
- Records, access to 77, 462
- Recreation 34
- Recreation, minor in 364
- Recreational sports 34
- Refunds 62, 461
- Registration 65
- Registration, late 69
- Rehabilitation counseling certificate 118
- Rehabilitation counseling, M.A. 395
- Religious studies certificate 118
- Repeat of courses 75, 98
- Requirements for baccalaureate degree 81
- Requirements for master's degree 94
- Residence halls 33
- Residence requirement for graduation 86
- Residence, determination of 56, 455
- Resource specialist certificate 203, 217
- ROTC 68, 335
- SAIL program 30
- Satisfactory progress grade 72
- Scholarships 36
- Scholarship standards 74
- Scholastic Aptitude Test (SAT) 50
- School administration, M.A. 225
- School business management certificate 118
- School psychologist services teaching credential 203, 215
- Second bachelor's degree 86
- Secondary education, M.A. 227
- Self-paced courses 22
- Semester-hour credit comparison 130
- Senior students, postbaccalaureate credit for 76, 98
- Services to students with disabilities 40
- Severely handicapped credential 203, 216
- Single subject teaching credential 203, 208

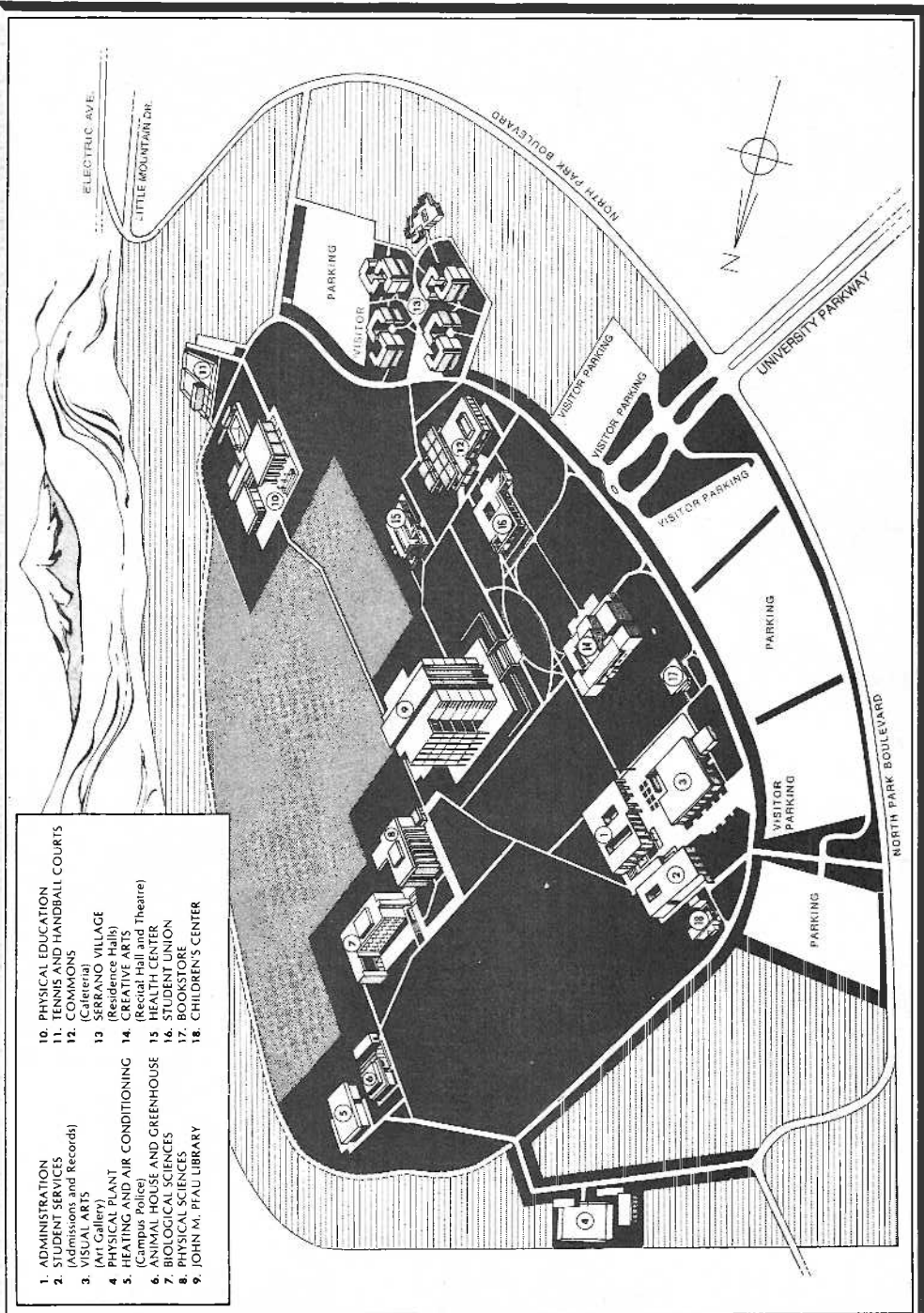
## 468 / Index

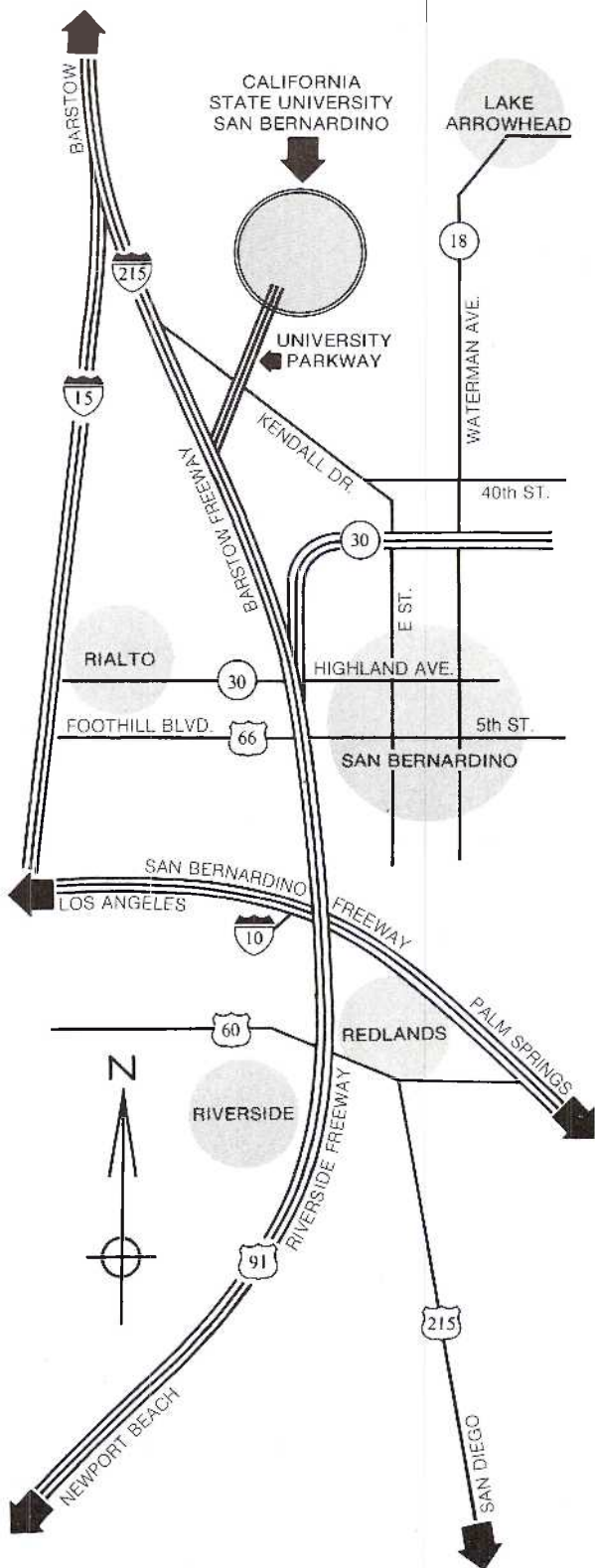
- Small business management certificate 119
- Social sciences, B.A. 398
- Social security number, use of 57
- Social work 408
- Social work, certificate program 119
- Sociology, B.A. 407
- Space reservations 47
- Spanish, B.A. 413
- Spanish for public services certificate 119
- Special education, M.A. 231
- Special education specialist credentials 203, 215, 216
- Special major, B.A. 416
- Special major, M.A. 417
- Sports 34
- Student activities 33
- Student Affirmative Action program 38
- Student Assistance in Learning 30
- Student body fee 461
- Student debts 63
- Student discipline 459
- Student government 33
- Student grievances 40, 71, 96  
(see dean of students)
- Student health center 40
- Student life 33
- Student responsibility 41
- Student union 34
- Study abroad 24
- Summer enrollment at other institutions 77
- Summer session 99, 126
  
- Teaching basic mathematics certificate 120
- Teaching credential programs 203
- Theatre arts, B.A. 419
- Thesis 97
- Three/three academic plan 19
- TOEFL 50, 93
- Tours of campus 26
- Transcripts 77, 99
- Transfer of credit 54
- Transfer students, admission of 49
- Trustees, California State University 10
  
- Tuition 61
  
- Unclassified postbaccalaureate standing 92
- Undergraduate admissions 45, 47
- Undergraduate course load 66
- Undergraduate degree requirements 81
- Undergraduate scholarship standards 74
- Undergraduate transfer students, admission of 49
- Undergraduate writing requirement 52, 85
- University fee 61
- University foundation 25
- University honors 86
- Upper-division writing requirement 52, 85
- Upward Bound program 38
- Urban planning certificate 120
  
- Veterans' dependents' exemptions 62
- Veterans, information 77
- Veterinary medicine 87
- Vocational education, B.V.E. 425
- Vocational education, M.A. 232
- Vocational subjects credentials 203, 211, 216
  
- Withdrawal from class 69
- Withdrawal from university 69
- Withdrawal, grades for 69, 72
- Women's studies certificate 121
- Writing certificate creative 121
- Writing certificate professional 121
- Writing competency requirements 52, 85

## NOTES

## NOTES

## NOTES







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